

Engineering
Library
GENERAL LIBRARY
JUN 10 1919
UNIV. OF MICH.

THE ARCHITECTURAL REVIEW

A Magazine of Architecture & Decoration.



The Abbey Gateway, Reading.
From a Water-Colour Drawing by F. Mackenzie.

MAY 1919

27-29, Tothill St., Westminster. London. S.W.

VOL. XLV

TWO SHILLINGS NET

NO. 270

RUBEROID ROOFING

UNLIKE ANY OTHER ROOFING



THE HIPPODROME, BALHAM,

is one of many well-known Buildings roofed with RUBEROID, some 800 yards of concrete flat and sloped roofs being weatherproofed. RUBEROID gives equally good services whether laid on concrete or boards, and has proved more

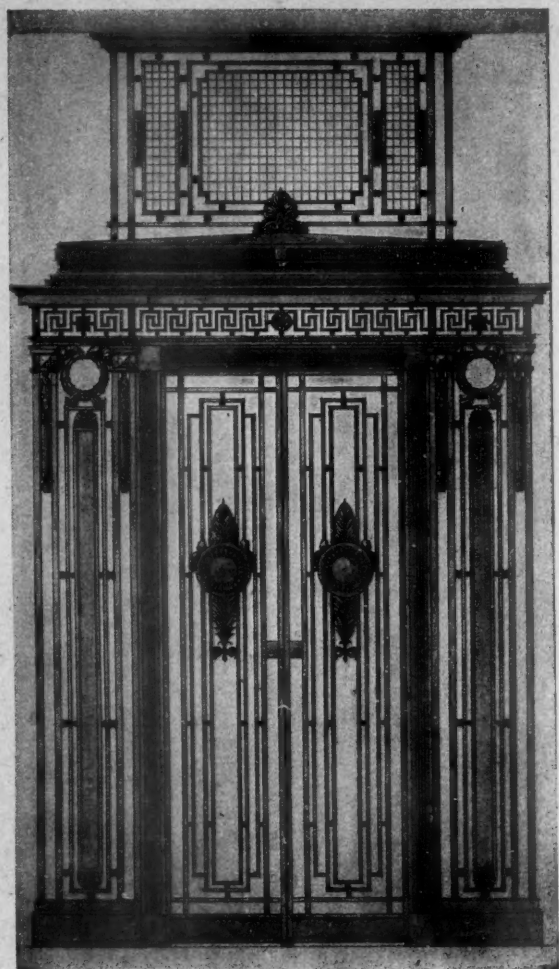
ECONOMICAL and DURABLE

than zinc for flat roofs. Do not decide on a roofing without first considering the advantages of RUBEROID. Full particulars and samples will be sent free on application to:—

THE RUBEROID CO., Ltd.,



9 Waterloo House,
Knighttrider Street,
LONDON, E.C. 4.



HILL & SMITH, Ltd. BRIERLEY HILL, STAFFS.

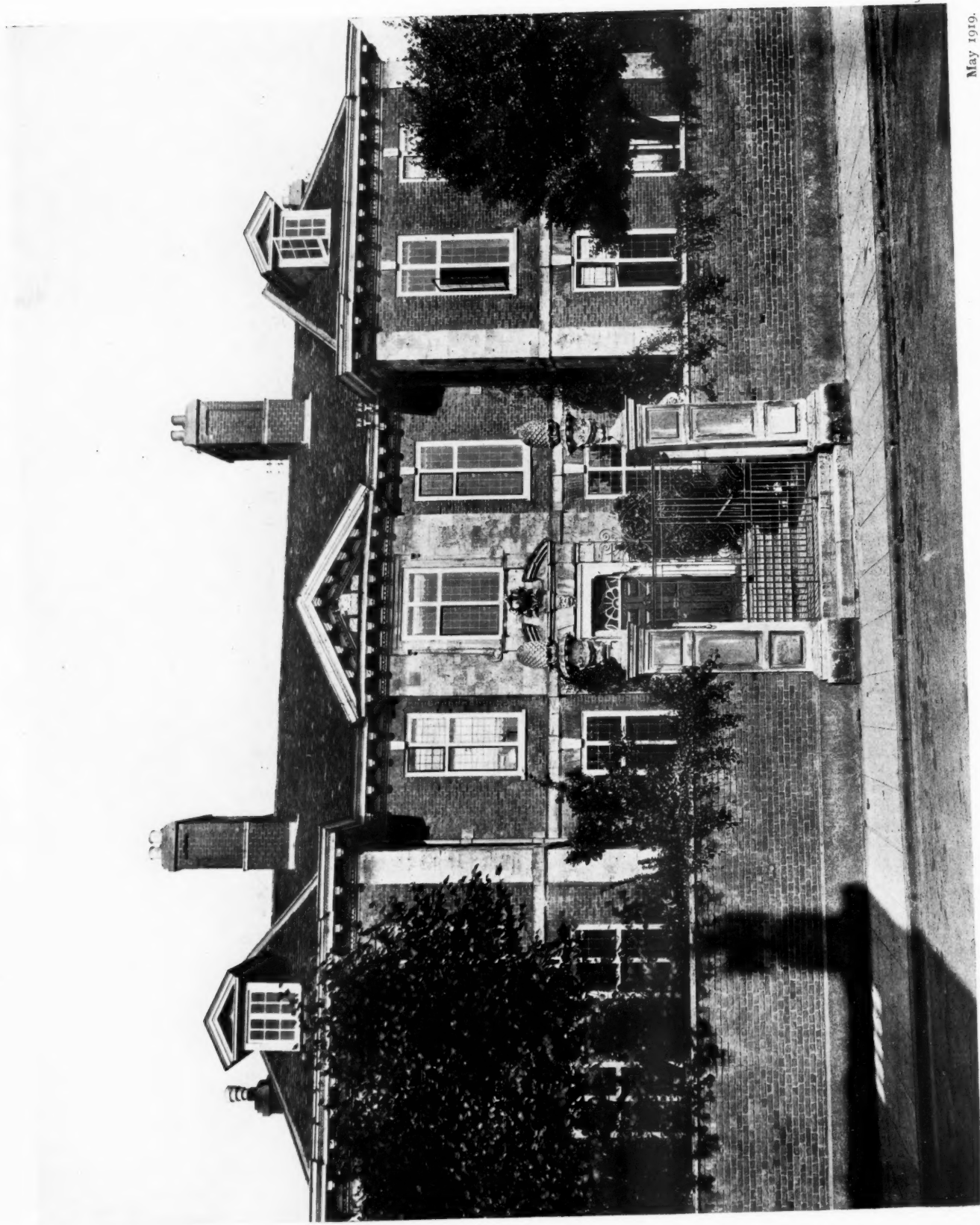
Craftsmen in Metals.

London:
8 Victoria St. S.W. 1.

Manchester:
8 Exchange St.

Padded Rooms

Specialists
Pocock Brothers,
235
Southwark
Bridge Road,
London, S.E. 1



WREN'S HOUSE, WEST STREET, CHICHESTER.

May 1919.

GEMS OF ENGLISH ARCHITECTURE.

IV: Wren's House and Pallant House, Chichester.

By NATHANIEL LLOYD, O.B.E.

IF, for the purpose of illustrating front elevations, one had to select the best six houses erected during the closing years of the seventeenth and the early years of the eighteenth centuries, one would probably find it necessary to include the two houses which form the subject of this article. They differ greatly in design, material, and detail: yet each is a perfect architectural gem, worthy of study and to be taken as a guide to right building. Both have been ascribed to Wren; and, although informed opinion is less confident as regards Pallant House, it is in every respect fit to be regarded as the work of that great master.

Wren's House bears the date of erection, 1696, on the field of the pediment which crowns the central feature containing the doorway and window over. Such central features were favourite and valuable components, the importance of which was better recognized by the old designers than by many of our day. These features were often confined to the doorway: but in others they were carried up to include the window over, and crowned by a pediment or other member, as in Wren's House. Never, perhaps, was the consequence of a good cornice more clearly emphasized. Variety is obtained not only by the carving of members and of the modillions proper to the order, but also by the way it breaks round the quoins and the projecting central feature. The photograph forming Plate I was fortunately taken when bright sunshine produced strong shadows, which gave full value to these details. The original windows, of the mullion and transom type, were replaced at some period by sash windows, which, in their turn, were taken out a few years ago, when the existing mullioned and transomed frames were inserted. These lack fine mouldings with which they should have been furnished, and are not altogether satisfactory. When the existing mullioned and transomed windows were inserted, the present dormers, with heavy pediments, took the place of smaller dormers. The original chimney caps have long disappeared, and for lack of them the house suffers greatly. Attention may

be drawn to the stone quoins, which form margins to the brickwork of the wings, and to the stone stringcourse which breaks round these (and the stone keys of the lintels), so greatly assisting in tying the house together. The stone doorway with its broken pediment accommodating the armorial cartouche is admirable, as also is the reticence and refinement of the treatment of the window architrave above it. The panelled stone gate-piers are slight for the vases and pineapple finials they carry; but the detail of all these is excellent, and

the quality of their carving delightful. The wiry looking iron gates are modern.

Unfortunately the garden front has been mutilated and quite spoiled by additions and alterations, while the fine staircase (stated to have been similar to that at Pallant House) was removed some years ago that two staircases might be inserted. One would have thought that even the grossest utilitarian would have respected such an obviously fine feature in a house which has always been a notable one in the city of Chichester; but apparently there is no limit to the worship of "cheapness" and "convenience," those dread and irresistible Molochs at whose shrines all that is good and beautiful must be sacrificed.

There is no record of the exact date of the building of Pallant House (which has at various times been named Swan House and Dodo House, after the finials on the gate-piers), but it must have been erected during the early years of the eighteenth century, while Anne was

queen. This house also suffers greatly through mutilation of the chimneys and from the erection of the brick structure by which access is gained from the staircase to the roof flat. If reference is made to the illustrations of Rampyndene in the first article of this series, the value of fine chimneys and the loss Pallant House has sustained by lack of suitable stacks will be appreciated. Notwithstanding this, however, the street elevation illustrated on page 90 is almost perfect. It is extraordinarily simple, and its dignity and charm depend almost entirely upon the excellence of the proportions of its features.



WREN'S HOUSE: DETAIL OF ENTRANCE FRONT.

The front is divided into three almost equal portions, that in the centre being slightly wider than those on either side. The difference in treatment of the centre introduces the necessary variety. Here the lines of the handsome doorway are not carried up as at Wren House, but the disposition of the first-floor windows is an exceedingly happy one. It is to this disposition of window and wall spaces over the whole front that Pallant House owes most of its charm, and it is the lack of such proportion that makes the majority of modern houses commonplace. Yet one would have thought that in these days when much building is wanted for little expenditure, a method of obtaining good effect for nothing would have been thoroughly exploited. Take the same number of windows of the same areas, the same amount of brickwork, the same cost, and only a little judicious shuffling of dimensions is wanted to make an elevation worthy of Wren that will otherwise be merely a builder's box. Only one little thing is necessary—the artist's eye to guide the shuffling of dimensions. That, alas! is what is lacking; we hear of everything else about designing, but seldom of the one thing needful.

While it is to the broad effects of good proportion that Pallant House owes its principal charm, details have not been neglected. They do not shout at the observer, but they are there, and what is more they bear examination and criticism. Note the slightly projecting stringcourse and the simple cut-brick cornice—how they tie the building together—and the pleasant shadows cast by them. See the variety provided by

the brick quoins chamfered to form channels, and each casting its own shadow. They give an appearance of strength to the angles, and also assist in furnishing the bare wall surfaces. Even these are "unmechanical," for those in the central portion are of different design from those at the extreme angles, not being chamfered as are the latter. Quoins are generally exaggerated in modern work; the following particulars, together with some measurements of brickwork, may therefore be of interest.

Walling bricks measure $8\frac{1}{4}$ in. by 4 in. by $2\frac{3}{4}$ in.; joints $\frac{1}{2}$ in.; five courses rise $14\frac{1}{4}$ in.

Projection of plinth, 3 in.; of string, $2\frac{1}{4}$ in. approximately.

Chamfered quoins, bricks $7\frac{3}{4}$ in. by $3\frac{7}{8}$ in. by $2\frac{3}{4}$ in.; five courses rise $11\frac{3}{8}$ in. These quoins are gauged with $\frac{1}{8}$ in. joints, and do not bond with the walling, though no doubt some bond is got behind. *Projection of quoins from wall face, 1 in.; chamfer starts from wall face and is at angle of 45 degrees.*

Quoins to central portion, bricks measure $7\frac{3}{4}$ in. by $3\frac{1}{2}$ in. by $2\frac{3}{4}$ in.; joints about $\frac{1}{8}$ in.; five courses rise $11\frac{3}{8}$ in.; gauged and do not bond with walling courses; projection from walling, 1 in.

Gate-piers, bricks measure 8 in. by 4 in. by $2\frac{3}{4}$ in.; joints about $\frac{1}{8}$ in.; gauged work; five courses rise $11\frac{1}{2}$ in.

The weakness of the courses of quoins not bonding with those of the walling is more apparent than real, for even if no bond is got behind, the walling is toothed into the quoins every four courses.

The only stone used is for the angles of the coping of the



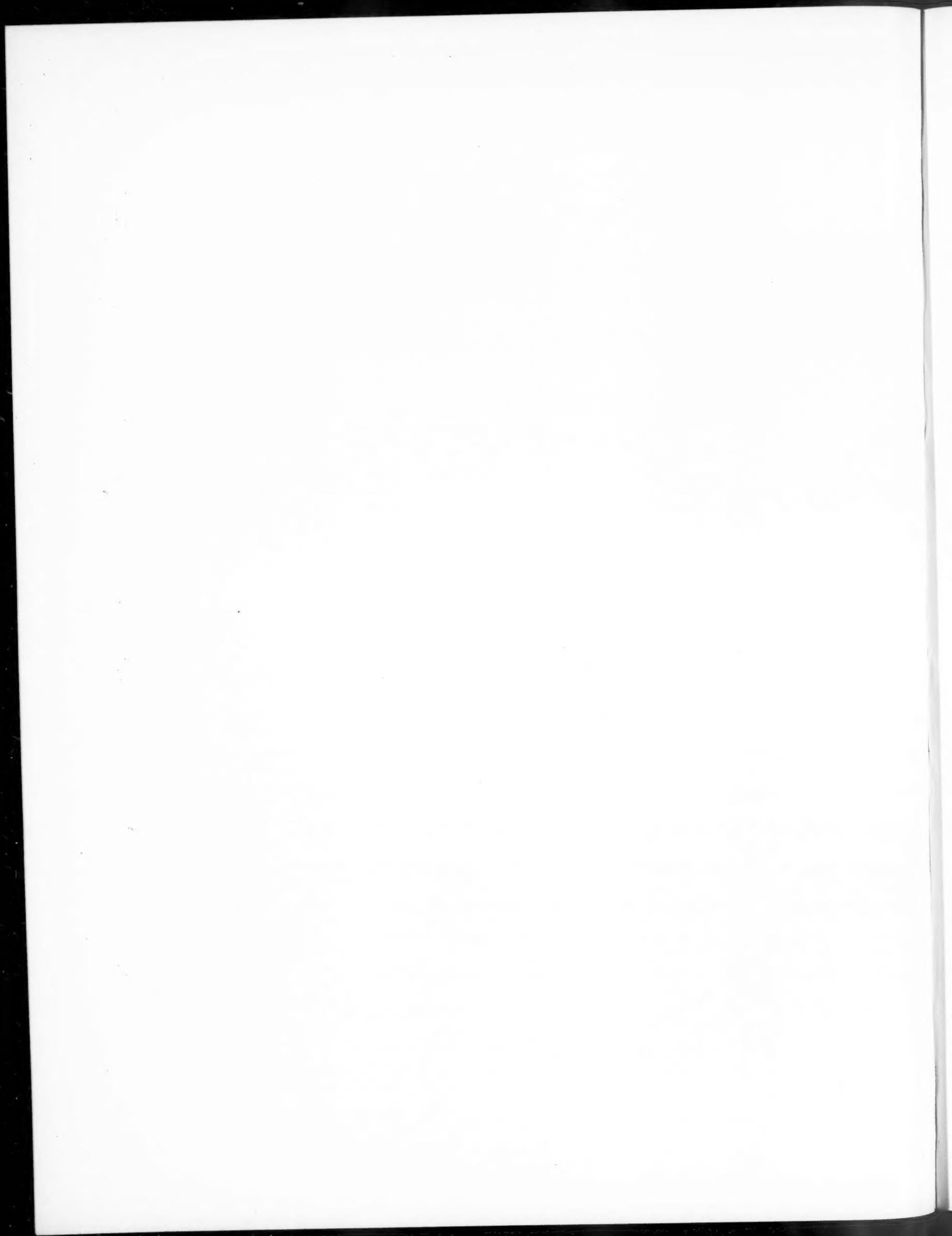
PALLANT HOUSE, CHICHESTER.

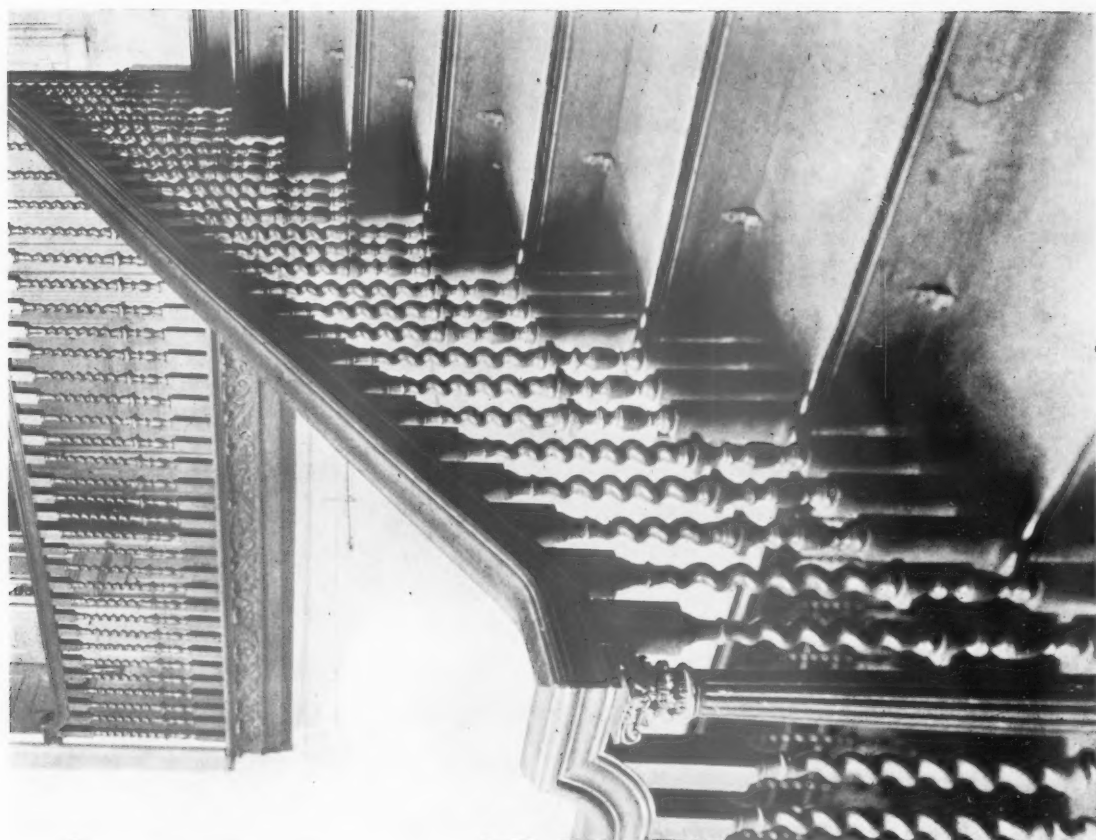


Plate II.

PALLANT HOUSE, CHICHESTER: DETAIL OF DOORWAY AND GATE PIERS.

May 1919.





May 1919.

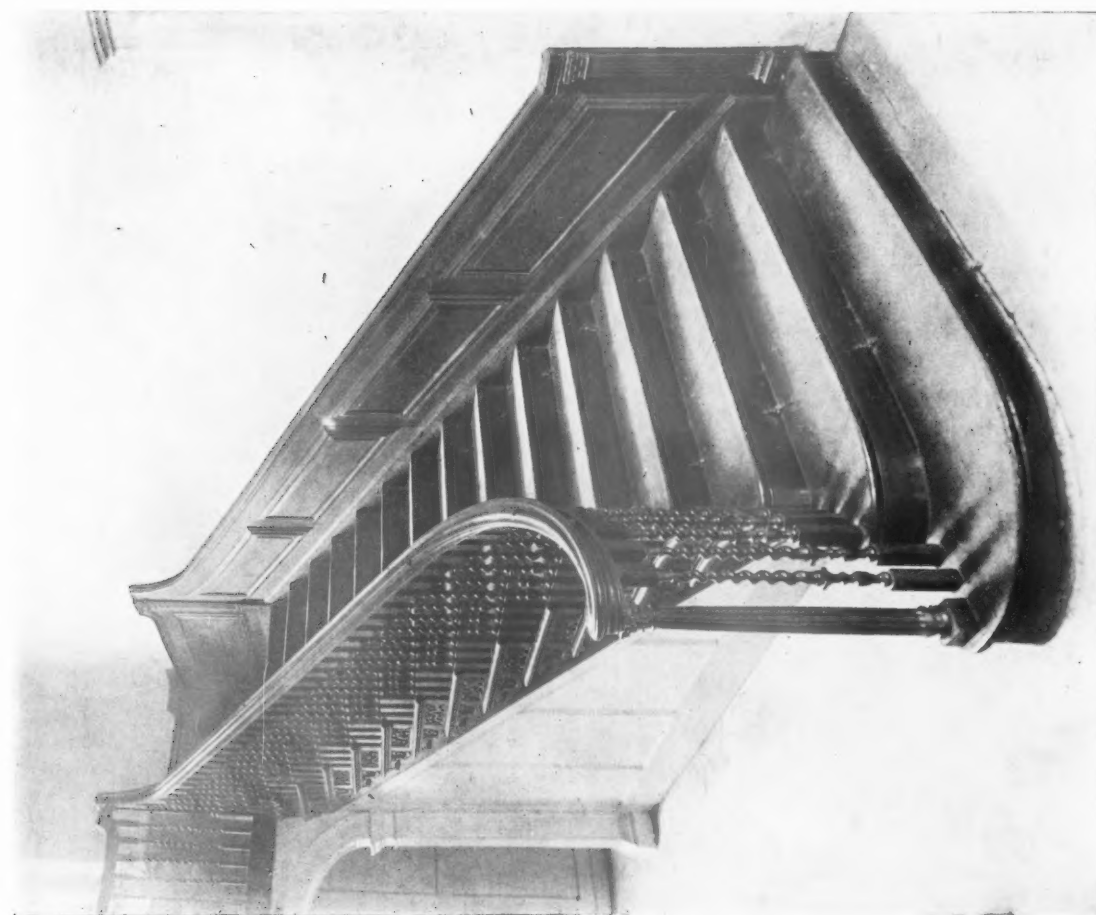
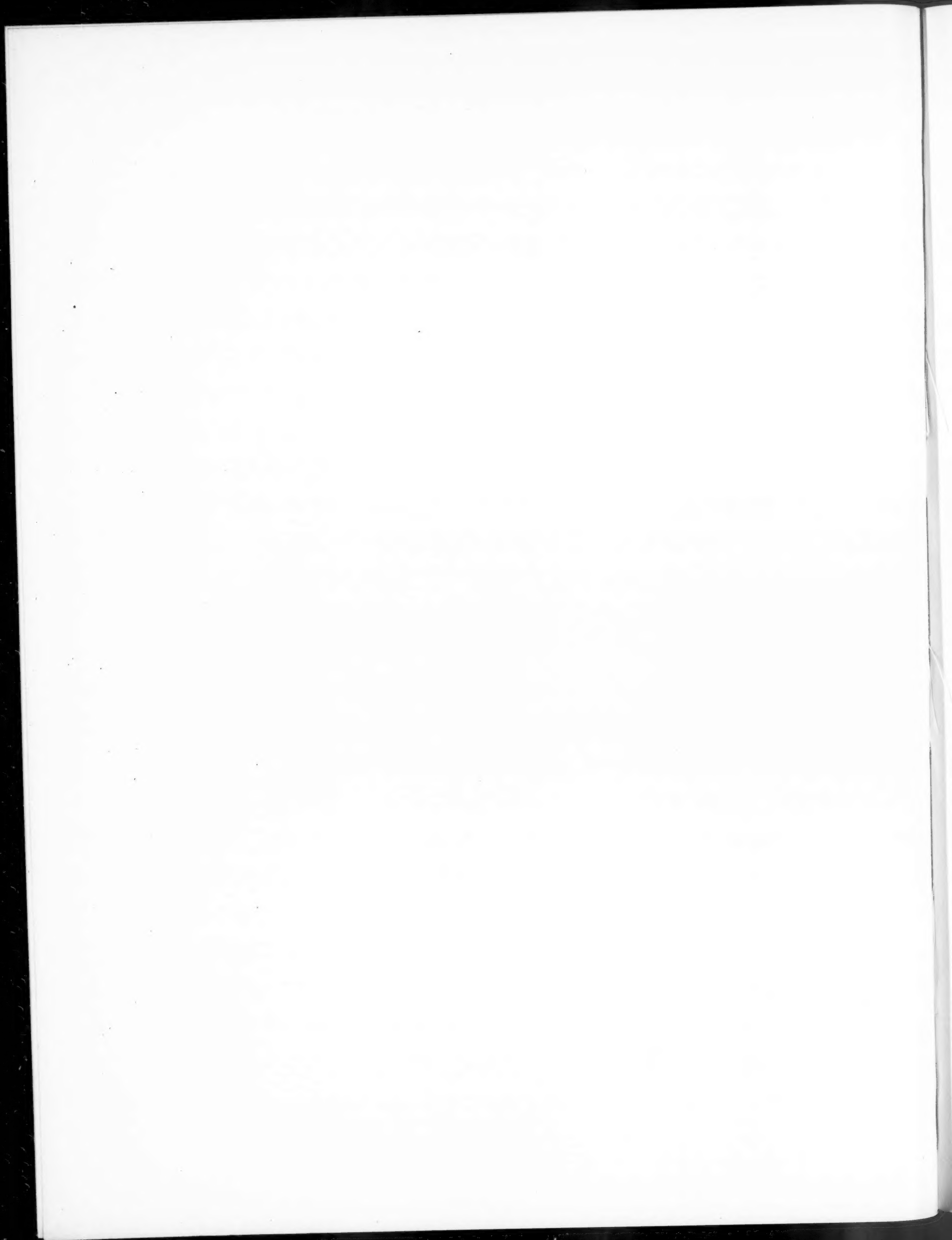


Plate III.

PALLANT HOUSE, CHICHESTER: THE STAIRCASE.



parapet (even these are of brick in the garden elevation), the caps and base of the gate-piers, and the coping of the dwarf wall.

The window lintels are executed in gauged and cut brickwork. In each, the five central voussoirs or keys are carved in relief, so that each lintel appears to have a key brick with a device carved in relief. On one lintel this is a rose, in others a thistle, harp, fleur-de-lis, oak twig with acorn and leaves, tulip, and one other which I have been unable to identify. Probably the five voussoirs were joined to form a key and carved before being built *in situ*.

It will be noticed that, in accordance with the commendable practice of the time, the woodwork of the sash-windows is almost flush with the face of the brickwork, and contrasts favourably with the present practice of setting back to form reveals as deep as four or five inches.

The parapet, built alternate panel and die, has a simple moulded brick coping. The lintels of the panels are built in

proportions and quality without being in any respect exceptional (Plate III). They are typical of the ordinary standard of design of the period, and compare favourably with similar work in houses of the same size built nowadays. That this is the case is not altogether the fault of the architect, who is often hampered by a client requiring accommodation so greatly out of proportion to the funds provided that these are inadequate for the proper carrying out of details. As our American friends say, "he has an appetite for champagne but a ticket for beer."

* * * * *

[It is a common practice (or perhaps we should rather say "weakness") in architecture, as much as in pictorial and other forms of art, to ascribe any meritorious work of uncertain authorship to a great master; and it is only natural that so prolific a worker as Wren should have had more buildings erroneously ascribed to him than perhaps any other architect.



PALLANT HOUSE: THE GARDEN FRONT.

cut and gauged brickwork, similar to those of the windows, but without the carved key voussoirs.

The doorway is large and rich in treatment; the flanking windows light the hall.

The gate-piers and the dodos which form their finials are exactly right. They suffer from lack of the gates which have been removed, but the overthrow and the railings are ironwork of excellent design and quality (see Plate II).

The garden elevation is less happy than that of the street front. The large window lights the staircase. The doorway beneath it appears mean and out of scale by comparison, but it is possible that this, like several of the windows, has undergone alteration at a later period (see above).

Opposite the entrance-door is the staircase, under which is the semi-elliptical arch common to many staircases of the period. The carving of the string at first-floor level is an unusual and effective feature. The landing is panelled with the usual large panels, as also are the rooms. All these are of good

In the case of these Chichester houses, however, there is good evidence—not documentary, but "external," so to speak—to support the attribution to Wren, who, even though he were not the architect, would conceivably be quite willing to accept credit for two such magnificent specimens of domestic architecture. It may be recalled that on the Sussex border, but actually in Kent, another fine brick house of the late seventeenth century—the Moated House, Groombridge—is popularly attributed to Wren, who, if he did not actually design it, certainly inspired the conception: stone portico, gate-piers, niches, and other features clearly revealing the influence if not the hand of the master. (The name of Inigo Jones has also been associated with this house, though of course less credibly.) Concerning the word Pallant, it is interesting to note that this is a corruption of "Palatinate"—that is to say, a "peculiar" of the Archbishop of Canterbury. The house takes its present name, of course, from the thoroughfare of the same designation.—Ed. A.R.]

CHELSEA OLD CHURCH.

By L. ARNOT and GODFREY ALLEN.

HOW many Londoners are fully aware of the treasure they possess in Chelsea Old Church? They wander discontentedly about the City, grumbling at the lack of pre-Reformation buildings, and all the time there stands near at hand a church recording the work of the thirteenth, fourteenth, sixteenth, and seventeenth centuries, and packed with memories and monuments of its illustrious parishioners. And yet how many people really know Chelsea Old Church? Let us hope a great many more than we imagine.

The church has been greatly altered since the days when Sir Thomas More, with his wife, his children, and his children-in-law, sat sedately in the family chapel on the south side of the chancel. The chapel itself is structurally much the same as it was in those days, but the whole nave has been entirely rebuilt.

The earliest record of the church is found in a papal letter of 1290 granting relaxation to penitents who visited the church of "Thelchurche" in the diocese of London on the Feast of All Saints, but in all probability it was founded before the middle of the twelfth century, for the Abbey of Westminster, which claimed the manor of Chelsea by a charter of Edward the Confessor, still possessed the advowson in 1536, when it was sold to Henry VIII. The chancel dates from the thirteenth century, and the chapel on the north side from the fourteenth.

By the seventeenth century the congregation was beginning to outgrow the church, "by wick means," we are told, "many of the ancient inhabitants and their families are too commonly putt from their seats." That the late-coming parochial aristo-

cracy should be thus inconvenienced was obviously unthinkable, and the destruction of half an ancient church was as nothing compared with securing them elbow room. In any case, the seventeenth century thought this sufficient excuse for pulling down the entire nave; and the business was put in hand without demur, as witness the following entry in the parish books dated 1669-70: "The sum of £580 12s. 10d. was collected by voluntary contributions of the principal inhabitants, for the rebuilding of the Church."

The whole western part of the church was promptly demolished, including the tower, and a rectangular nave erected embracing the entire width (or rather more) of the old building, and supported at the eastern end by three new arches opening into the chancel and two chapels. Though the necessity for such rebuilding may be deplored, it must be admitted that the work was very thoroughly done, for in 1815 the tower was surveyed by "a very respectable surveyor," who reported it to be so well constructed that the buttresses all "butterd" inwards; and the dauntless surveyor announced himself ready, if the walls were taken out from between the buttresses, to stand on the top of the tower while the ringers rang a good peal.

In 1832 the church was restored, and among other things a gallery across the chancel arch was removed—a hideous gallery with seats facing west, reached by a staircase half blocking Sir Thomas More's tomb, with its door cut in the chancel wall, thereby destroying half a double piscina. To light this gallery two dormer windows had been cut in the thirteenth-century timber roof, and these remain.

The church was repaired in 1857-60, and again in 1910. It



CHELSEA OLD CHURCH: GENERAL VIEW.

Photo: Arthur S. Long.



The Chancel.
View taken after the 1910 Restoration.



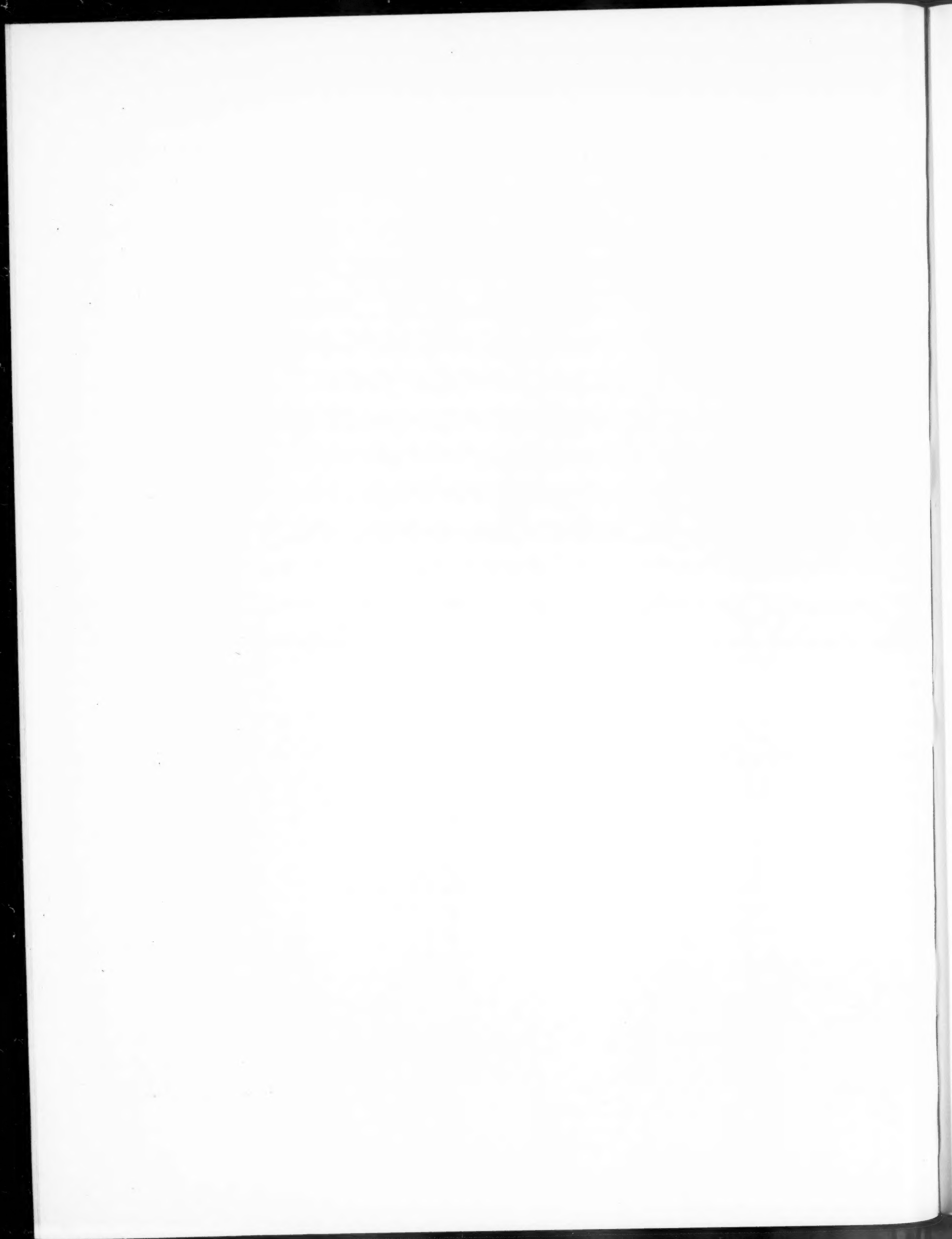
Plate IV May 1919.

The Lawrence Chapel.

Photos: Arthur S. Long.

This View was taken before the Restoration of 1910, and shows the Chancel Roof plastered.

CHELSEA OLD CHURCH: INTERIOR VIEWS.





A HOLBEIN CAPITAL.

was during the latter repairs that the above-mentioned chancel roof was discovered, it having been plastered over, probably when the nave was rebuilt. It appears that this roof must also have been lowered at the same time, judging from the fact that the splays of the east window come to an abrupt end in the roof. This was probably arranged so as to form a better fit to the new nave. (See Plate IV.)

From an historical point of view the More Chapel is the most interesting part of the church; but from an architectural point of view the seventeenth-century south façade, crowned with its heavy plastered cove, is most arresting. (This elevation was illustrated in the "Practical Exemplar" series last month.) The cleverness displayed in the design here is very noticeable. The two sizes of bricks employed give great richness of texture; the smaller bricks measure 8 in. by 2½ in. by 4 in., and occupy four courses and one mortar course to 11 in., the larger bricks four courses to 11 in. The design of the filled-in doorway is certainly beautiful. All the brickwork here is of a smaller kind, with the exception of the two spandrels. It is indeed unfortunate that this doorway is not used for its original purpose, instead of the lower part being filled in with modern brickwork, and the upper part with glass to form a small window, particularly as there remains but one entrance to the church, under the tower, with the exception of the vestry door.

To return to the More Chapel. On the south side of the chancel stands an equilateral pointed drop arch of two large chamfered members, resting on semi-octagonal responds. This arch is built of hard clunch, and is evidently of fourteenth-century workmanship, showing that More did not found, but rebuild, the chapel. His great-grandson, Cresacre More, describes how, in 1528, More built himself a chapel "where he might sequester himself . . . and shake off the dust of earthly businesses which otherwise would easily defile his soul." And

here it was that the famous Chancellor of England would act as server at the altar, carry the processional cross, and sing in the choir. The Duke of Norfolk, coming on one occasion to dine with More at Chelsea, found his host singing in the choir, dressed in a surplice; and as they went home together, arm in arm, the Duke, who had evidently been slightly scandalized by the sight, remarked, "God body, God body (my Lord Chancellor) a parish clerk, a parish clerk, you dishonour the King and his office."

The designs of the capitals of the arch leading into the chancel testify to More's activities in Church and State. That on the west displays two bundles of tapers, a pair of candlesticks crossed, a holy-water stoup and sprinkler, and a clasped book; while that on the east bears More's coat of arms and crest of a moor's head, a sword and a sceptre, what appears to be a mace, and also a kind of purse which might be the receptacle for the Great Seal. The designs for these capitals were drawn by Holbein, who was staying with More at Chelsea at the time that the chapel was being rebuilt. (See this page.)

We are fortunate enough to possess records of More's life at Chelsea, compiled by members of his own family, and their writings all convey the same impression—of the quiet, happy life of that household, with the children, their wives and husbands and the eleven grandchildren, all living together under the care of the gentlest and most lovable of fathers, the most indulgent of grandfathers. But there is no doubt as to who ruled that household, for More was something of an autocrat, if a beneficent one. His second wife, who was by no means young when he married her, and who was, we are told, "of a nature somewhat harsh, and besides very worldly," was obliged, gently



VIEW FROM THE MORE CHAPEL.

but firmly by her husband, to learn to play the lute, viol, and some other instruments; while the servants had to submit to rules such as no modern domestic would put up with for ten minutes. None of them was ever allowed to be idle, evenings out were unknown, the men and women were rarely permitted to speak to each other; and we read that whist drives in the servants' hall were expressly forbidden, for "he suffered none to give themselves to cards or dice."

During his life in Chelsea More had several visits from Henry VIII, who would "sodenly somtymes come home to his house at Chelsea to be merry with him, withere on a tyme unlooked for he came to dinner, and after dinner in a faire garden of his walke houlding his arme about his neck." What a delightful picture—the sudden arrival of the King (a famous *bon-vivant*), the cook's consternation; and later, the Royal appetite having been appeased, the unfortunate Sir Thomas staggering round that "faire garden" supporting His Majesty's massive person! More's son-in-law proudly reminded him that he had never seen the King treat anyone else with such familiarity, except Cardinal Wolsey. An unfortunate comparison: and sure enough, within a very few years, More having refused to countenance the King's marriage with Anne Boleyn during the lifetime of Katherine of Aragon, that same Royal hand was signing his death warrant.

Three years before his execution, and before he had incurred the King's displeasure, More had erected a tomb for himself and his two wives. It stands on the south side of the chancel, close to the altar, and is of grey stone, consisting of a plain base, on which rests a four-centred arch forming a recess. More wrote the epitaph, which briefly relates the history of his career. In it he refers to his Royal master as "a noble King" and "a most gentle Prince"; and it would be pleasant to believe that Henry, when he came later to Chelsea Church to be married to Jane Seymour, felt a trifle uncomfortable at being confronted with his victim's devoted references to himself. But probably, practised bridegroom though he was, he was too flurried and fidgety to read inscriptions on tombstones while waiting for his bride. More added to the epitaph some Latin verses which may be translated roughly as follows:—

"In this tomb which I have prepared for myself and my second wife Alice, lies Jane, my first wife, the mother of my four children, to whom their stepmother shows such devotion that I know not which of two such wives is the more dear to me. Ah! how well could we three have lived together did fate and did religion permit it. But the tomb shall unite us, and Death thus give us that which life could not."

So More evidently did sympathize, up to a point, with Henry VIII's matrimonial extravagances.

A year or so after More's execution Henry bought the Manor of Chelsea, and proceeded to build himself a grand new house with a large garden, where according to a Royal Roll in the British Museum, he employed thirty-nine gardeners and

six "women wederse." At this manor Queen Elizabeth spent ten years as a girl, under the chaperonage of her fourth and last stepmother, Catherine Parr; and the sharp-featured, sandy-haired princess must have sat in what is now known as the Lawrence Chapel, lying on the north side of the chancel, this being the chapel pertaining to her father as lord of the manor. The name of Lawrence has been given to it after the family to whom it belonged during the sixteenth, seventeenth, and eighteenth centuries, and whose monuments cover a large part of its walls.

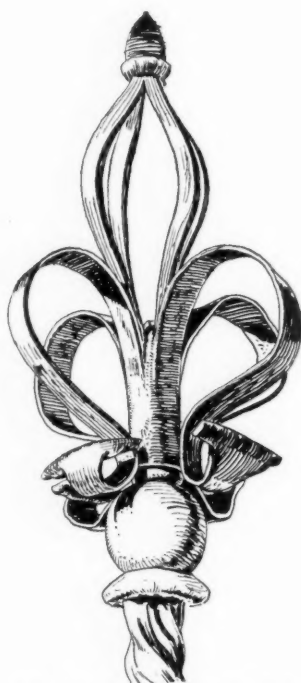
The window in the north wall of this chapel shows that it was built about 1350. Originally there were three such windows; but in 1631 one of them was covered by the monument to Mrs. Sara Colville, and the other was removed in 1679 to make the present doorway into the vestry. The old doorway can be seen bricked up under the existing window. The roof has been raised two feet above its original height, probably in 1679, at the time that the chancel roof was lowered.

One of the most beautiful monuments in this chapel is that under the east window to Sir John Lawrence, who died in 1638. The composition of the whole tablet is very fine, and a great variety of materials have been employed. The inscription is cut on black touchstone within an architrave of alabaster, surmounted by a cornice and circular pediment supported at each end by Corinthian columns of black touch with gilt capitals and bases of alabaster, the whole resting on a moulded ledge of black touch. (See page 95.)

Between the Lawrence Chapel and the chancel stands a monument to Richard Gervoise, 1563, in the form of a triumphal arch. One would expect to find a tomb beneath it; but as the space between the piers is only 4 ft. 6 in., it is obvious that the arch was intended purely as a memorial. To make room for it, the west pillar of the original arch between the chancel and chapel was removed, and the monument stood clear; but in 1784 the pillar was rebuilt, and probably the monument was then made to take part of the weight of the roof.

In the main body of the church, against the south wall, stands the tomb of Lord and Lady Dacre, 1595. This is a really sumptuous piece of work, beautifully designed, and carried out with great delicacy. On an altar tomb inlaid with panels of black and red marble, lie the alabaster figures of Lord and Lady Dacre. The arch of the recess in which they lie is coffered and carved with roses, and the back is covered with carved painted arabesques. Beside the tomb is the tiny effigy of their daughter; but the pews are so close to the monument that it is impossible to show this figure adequately in the photograph. The ironwork surrounding three sides of the tomb is particularly beautiful, and bears a very curious resemblance to the iron grille enclosing the tomb of Thomas Sutton in Charterhouse Chapel. (See Plate V.)

On the opposite side of the church is the monument of Lady Jane Cheyne, daughter of the first Duke of Newcastle, a staunch Royalist who lived in banishment until the Restoration,



SKETCH OF IRON FINIAL
FROM THE DACRE TOMB.

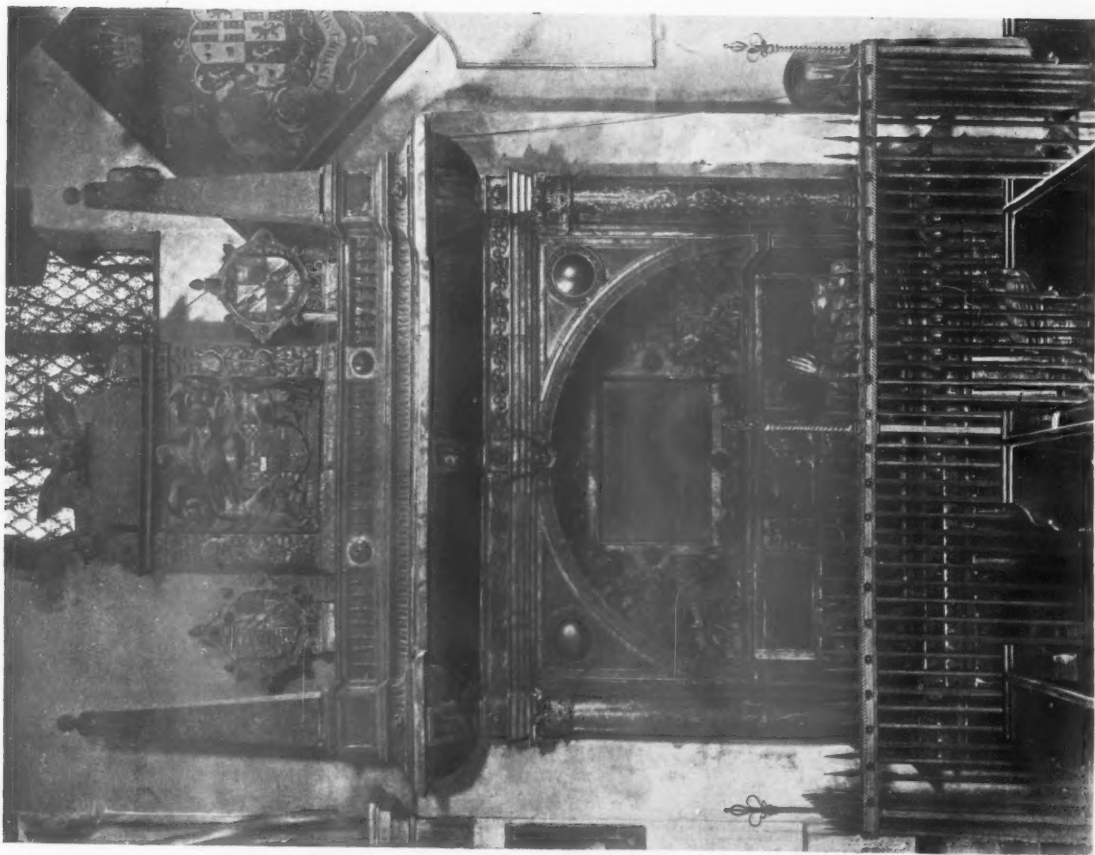
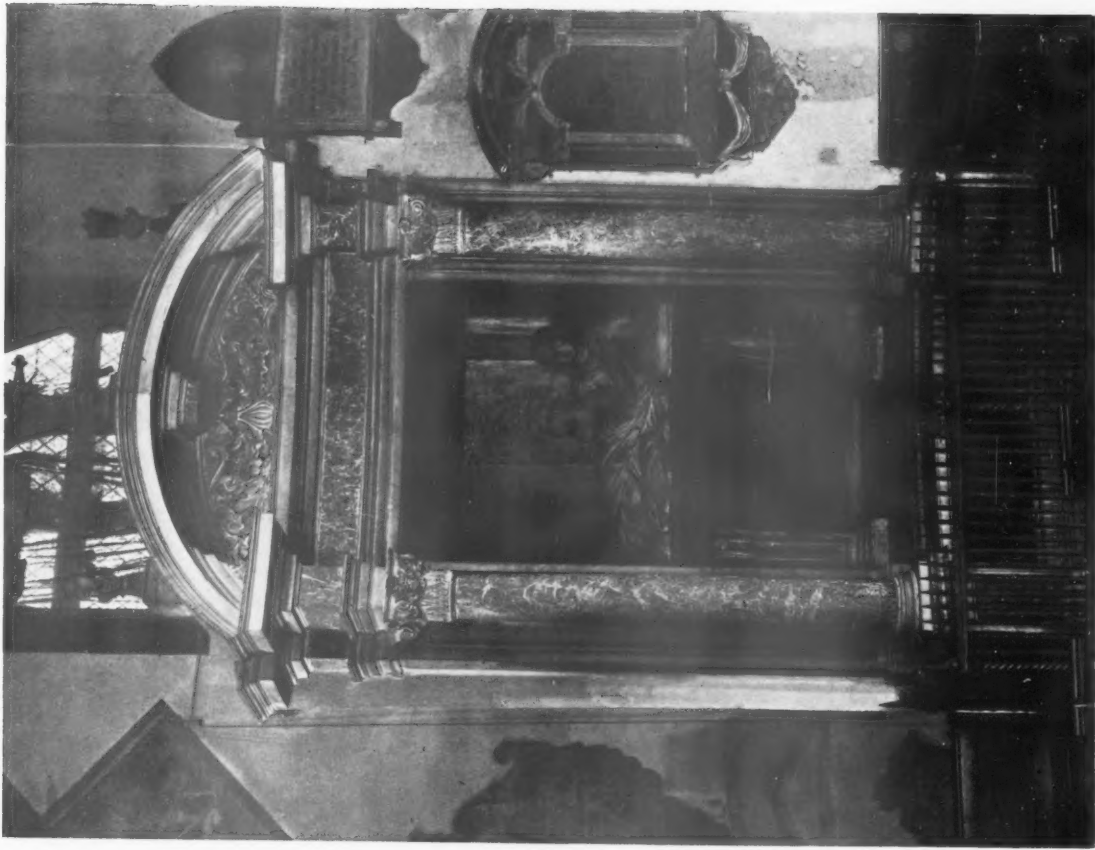


Plate V. May 1919.

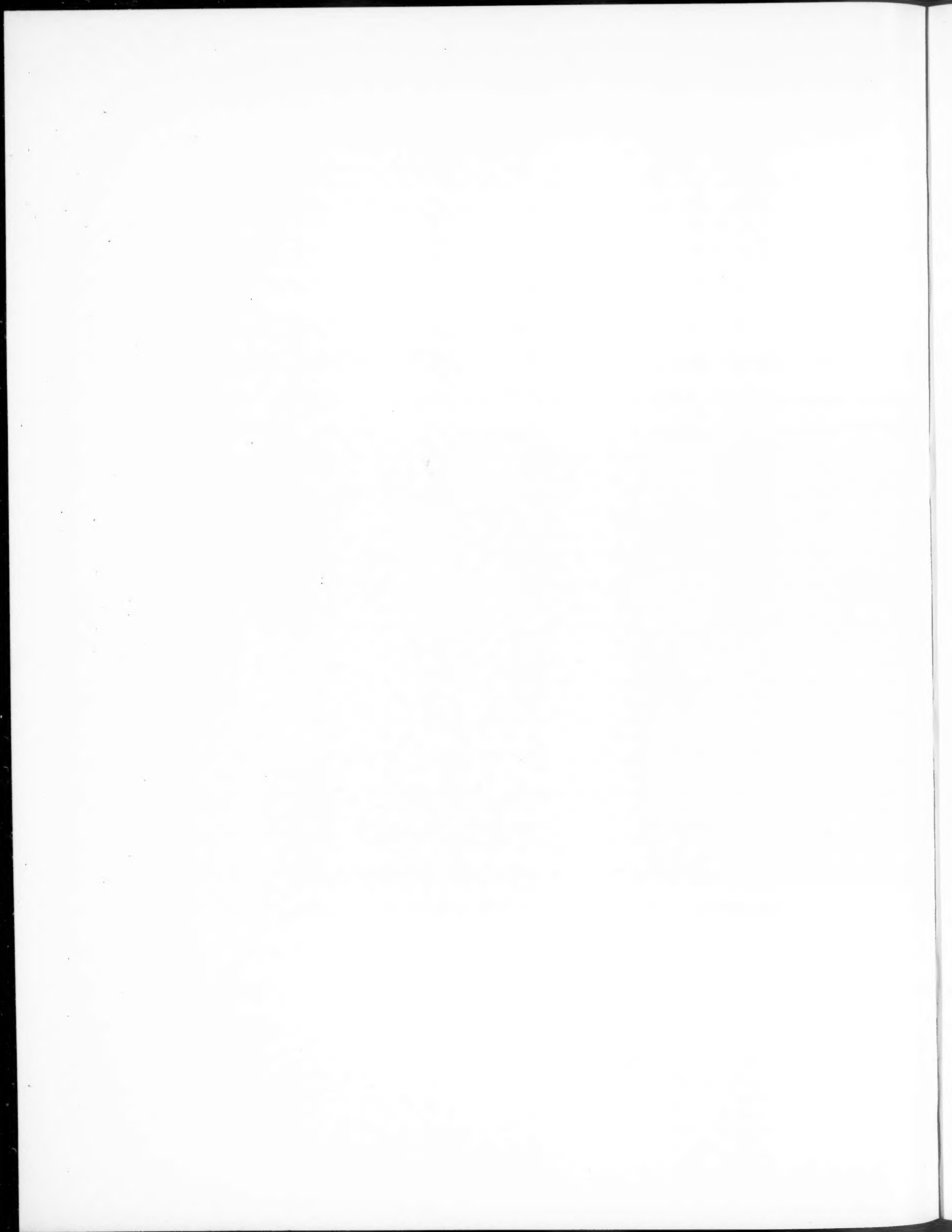
Tomb of Lord and Lady Dacre.

MONUMENTS IN CHELSEA OLD CHURCH.



Photos: Arthur S. Long.

Monument to Lady Jane Cheyne.



supported by his daughter, who sold all her jewels and plate for this purpose. Later she married Charles, Lord Cheyne, and bought Chelsea Palace and Manor. She was a great benefactress of Chelsea, and was foremost among those who contributed towards the rebuilding of the church, and "in recognition of her pious generosity the road leading to the church was named Cheyne Walk." Her monument (Plate V) was designed by Paolo Bernini, son of the famous sculptor of that name. There were evidently differences of opinion about the proper price of the work, judging by a correspondence between Lord Cheyne and Edward Altham in Rome, to whom the management of affairs

thirty cases, and had been unpacked, another difficulty arose from the fact that Lady Jane's figure is lying with the feet to the west. Mr. Altham was very sorry for the mistake, but suggested that "such a small error in a reformed Church will be the easier pardoned, being a step out of the way from antiquity in this nature, will appear nothing in respect of those large strides which the reformists have taken in things of great importance from ancient Church ceremonies."

Probably there is no church in London so rich in monuments of celebrated people as Chelsea Old Church, and only a tithe of them have been referred to in this article. The latest

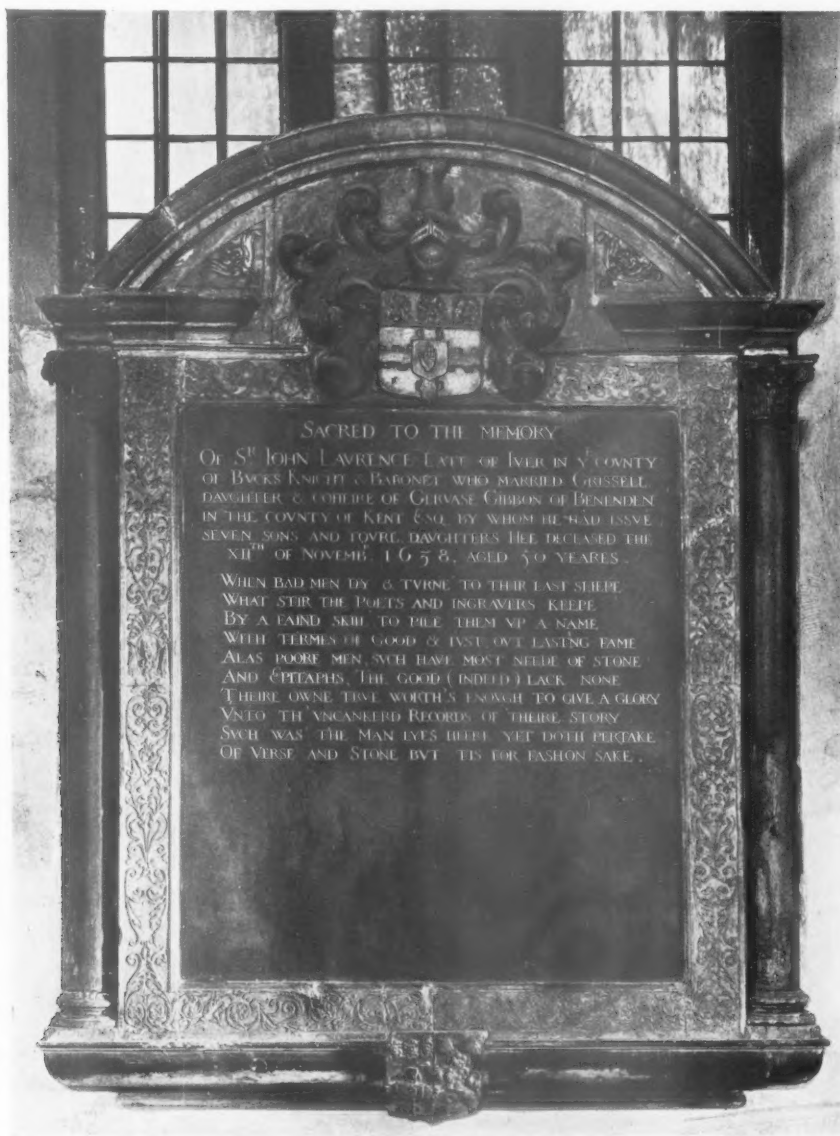


Photo: Arthur S. Long.

TABLET TO SIR JOHN LAWRENCE.

was entrusted. "There was more than one mistake," he writes, "in the account sent you about the Monument, which partly proceeded from the architect, whose computation made of the expenses was writ you, but he (afterwards 'twas found) was no competent judge, it belonging to the Capo-Maestro of the stone-cutters to understand the exact form and the true expense of the design who would have eight hundred crowns for the making of it as the Architect had designed it, but we brought him to seven hundred crowns and lower he would not fall." Later, when the monument had been shipped to England, in

addition is a tablet in the More Chapel in memory of Henry James, who, it will be remembered, became a British subject shortly before his death.

And so runs the history of Chelsea Old Church and its parishioners from the thirteenth-century penitents coming here to make their peace with heaven, through the unsettled days of Henry VIII and the Reformation, and so down to the days when events moved a great citizen of a great nation to renounce that cherished citizenship so that he might the more completely throw in his lot with England and her cause.

THE PRACTICAL EXEMPLAR OF ARCHITECTURE:

Some Details from St. Paul's.

A PART from its strictly architectural merit, St. Paul's Cathedral contains some of the finest specimens of handicraft of the seventeenth and eighteenth centuries. It is one of the remarkable things about Wren that, while he had professional troubles, and a practice the magnitude of which few architects can conceive, he was able to devote the greatest care to detail. It is true that he was surrounded by a brilliant group of craftsmen who not merely executed but also designed much of the work connected with his buildings, but one is certain of his earnest and active supervision in all things. The accompanying drawings and photographs illustrate the work of one of the most famous of all these craftsmen—Jean Tijou—the smith who gave to the art of working iron an impetus that lasted throughout the eighteenth century. His own work is the best that has ever been done in England; and his ironwork at St. Paul's, if it is lacking in some of the virtuosity which characterizes the grilles at Hampton Court, is perhaps his masterpiece.

When Tijou's name first appeared in the "Account" books it was not as a maker of grilles, but of windows. In "Nov. 1691 and Jan. 1692 he supplied the ironwork of eight windows, in Nov. 1692 four more, and towards the end of the following year nine upper windows for the Choir." The windows were all made at Hampton Court and brought by water to Paul's Wharf; but in 1699 he appears to have moved his works into town. The Account books show further that some of his work was done "by agreement"—a design must have been submitted with a price to Wren—but much of it was reckoned at so much a foot, the windows belonging to the latter category. Tijou, no doubt, supplied his own designs for his more intricate work, but the windows probably conformed to a scheme supplied by Wren.

One of the wrought-iron keystones which occur in the windows is illustrated on page 98. They are features not often found in the ironwork of windows, and in this instance



LOCK AND BOLT IN ST. PAUL'S CATHEDRAL.

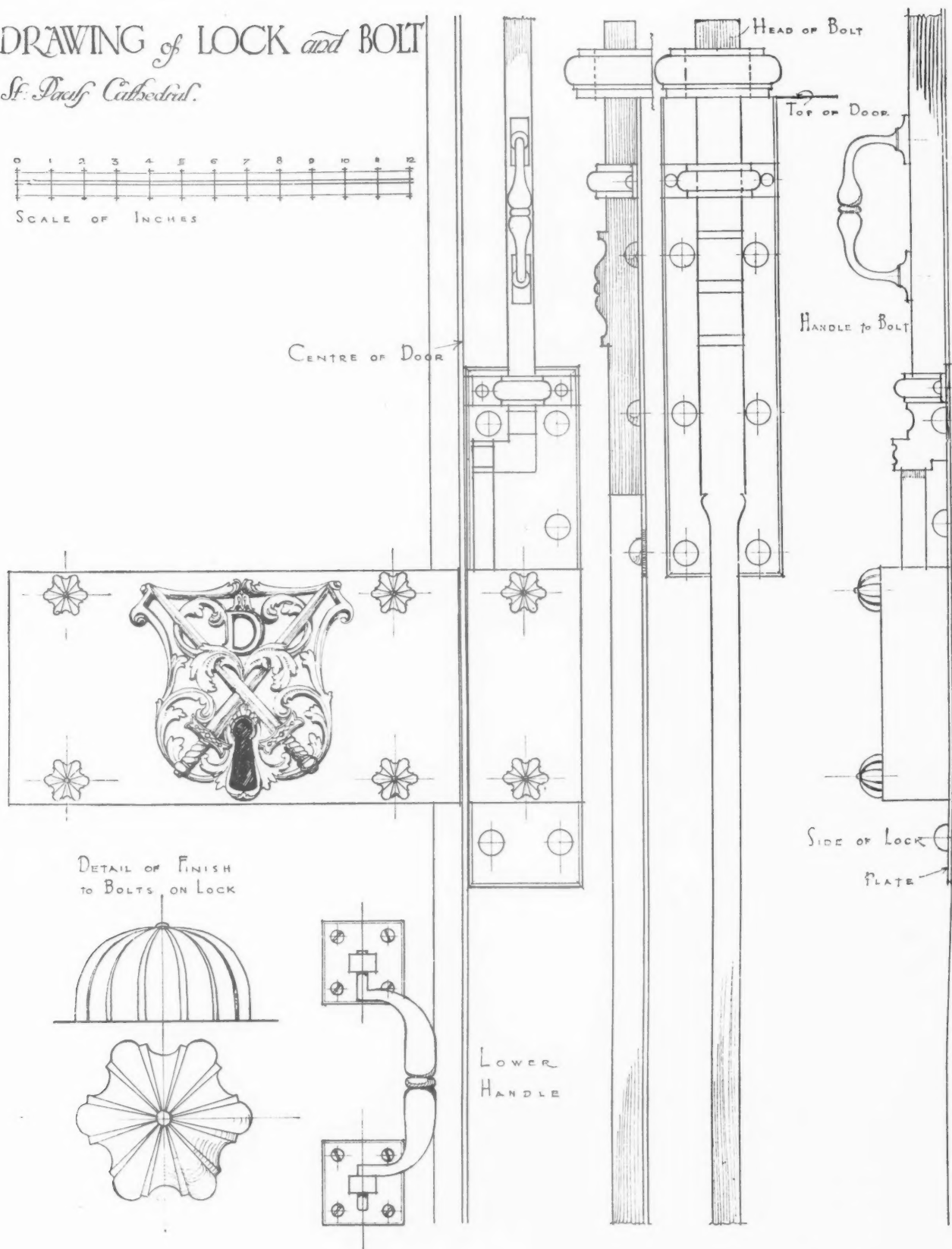
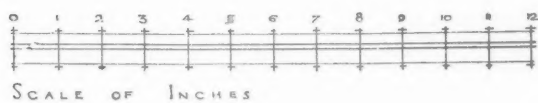


DETAIL OF LOCK.

are somewhat lost to view. Four of them were, however, moved later from their original positions, and used as lamp-brackets in the corners of the Wellington Chamber in the Crypt, where one is surprised to notice their considerable size. Other smiths besides Tijou were employed in the building, but it is probable that the beautiful escutcheons and bolts to many of the doors are the work of the Frenchman. No other man of his time could have spoken so gracefully and fluently in iron as this.

Three examples only of the minor details of St. Paul's are given; but there are countless others, and most of them beautiful both in design and execution. The exact purpose for which the pair of wooden gates was intended is not very clear. The design appears to be of Jacobean origin. There now remains only one pair in its original position in the Crypt; but

DRAWING of LOCK and BOLT
St. Paul's Cathedral.



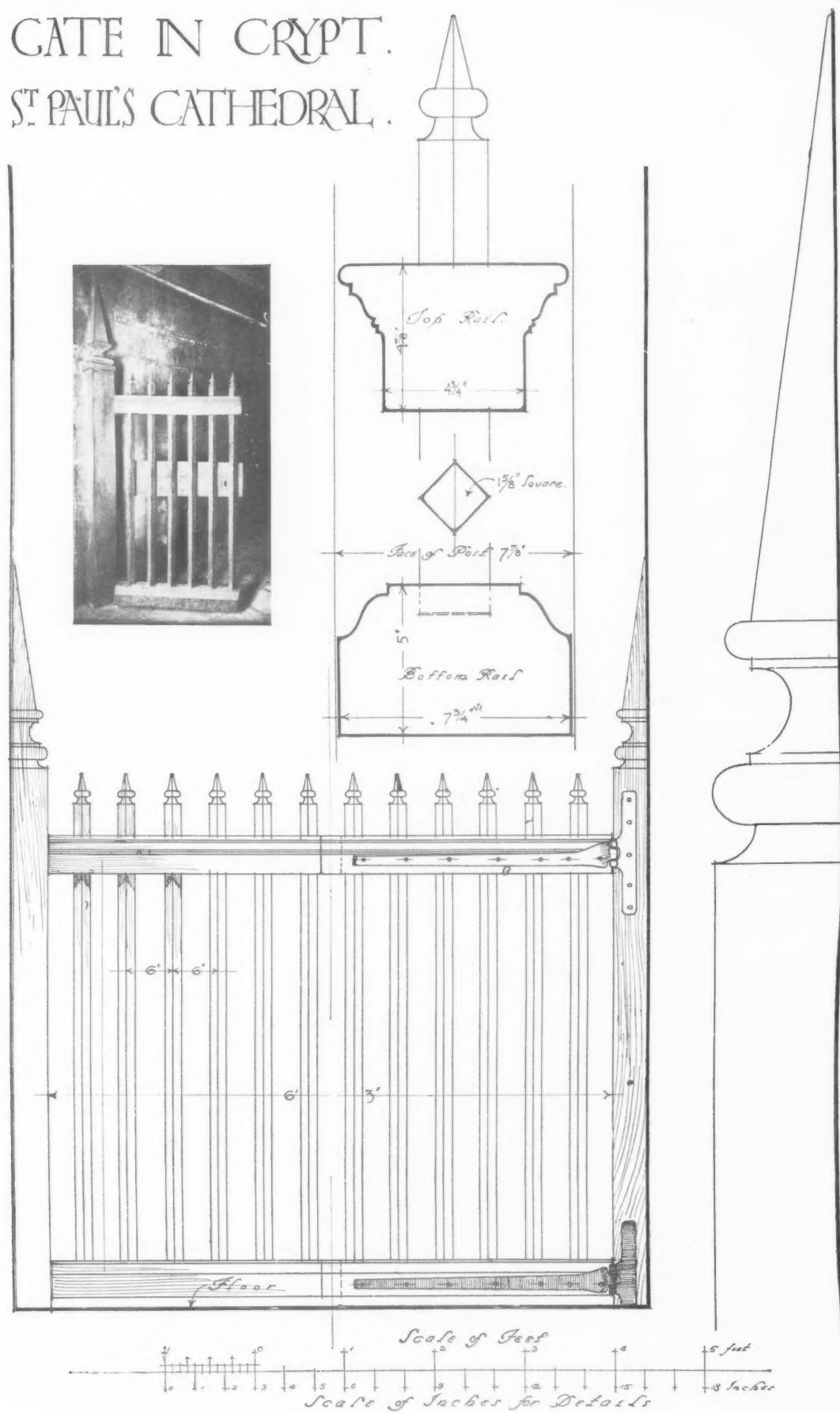
Measured and Drawn by H. A. McQueen.

WROT IRON KEYSTONE TO
WINDOWS. ST. PAUL'S CATHEDRAL.



Measured and Drawn by H. A. McQueen.

GATE IN CRYPT. ST. PAUL'S CATHEDRAL.



Measured and Drawn by H. A. McQueen.

W. & A. G. & Co.
Printers
15, Abchurch Lane,
London, E.C. 4.

there were at one time four in all, placed in the north and south aisles east and west of the crossing.

The late Major Halley in his essay on "The Rebuilding of St. Paul's Cathedral from the Accounts," says:

"It appears . . . that the English smiths [employed in St. Paul's] were fine workmen and artists, and only in the more graceful touches was their work inferior to that of the Frenchman Tijou. It is interesting to notice that the pineapple on the top of the north-west tower was made by the latter, whilst the finial on the south-west tower was done by Jane Brewen Coppersmith (a woman), whose workmanship is much better than Tijou's."

Major Halley adds:

"No completer refutation of the idea that the practice of crafts failed with the passing of the mediæval spirit could be

instanced than St. Paul's, where all the crafts appear in the greatest vigour, and so happily married that there is not a jarring note—no workmanship but what is admirable, no ornament but what is perfectly adjusted to its place. And the excellence was general, for the craftsmanship of the seventeenth and early eighteenth centuries seems to me to stand pre-eminent, as the masonry and stone-carving, the joinery and wood-carving, the carpentry, the brick and plaster work, the ironwork, are the work of men whose skill of hand, whose intelligence, has never been surpassed. No, these hands did not lose their cunning till they faltered and failed before the unerring power of steam, which came and, like some titanic power, swept away ruthlessly what the feeble hand of man alone can give to stone, to wood, or to iron—something of the warm heart that moves the pulses in the quick joy of creation."

W. G. A.

AN EXHIBITION OF EARLY ENGLISH WATER-COLOURS.

MESSRS. AGNEW have arranged a positively wonderful exhibition of water-colours at their galleries in Old Bond Street. To start with, the third picture in the series on the walls is as fine a Cotman as one could see; it is an extremely beautiful view from beside the Quai at Rouen of tall, dark trees, glittering buildings, and the Côte Ste. Catherine all bathed in sunshine. This work, by its proximity to David Cox's "Hardwick Hall," enables us to estimate Cotman's superiority over Cox as a painter. Despite Cox's breezy manner, which constitutes him a kind of water-colour Constable, his work is generally so over-loose, and lacking in surface differentiation, as to convince one that he is an interesting but overrated painter. Close at hand is Girtin's noble representation of "Lincoln Cathedral," rising majestically out of a tangle of greenwood into a stormy grey sky, the whole a harmony of warm greens and soft greys.

By De Wint there are also notable works, such as his "Harvest Time," with its serene, slowly drifting sky, and its counterpart "Landscape," a marvellous rendering of a blustering day, with its alternate moments of threatening shadows

and smiling sunshine. It is as breezy and spontaneous a piece of work as one could hope to find.

There are no fewer than forty-five examples of Turner in the exhibition, a great many of them of the very highest order. It is difficult to select where there is so much of exceptional merit; but one cannot refrain from mentioning the little work, "Patterdale Old Church," a humble edifice enough, but for the moment a centre round which is thundering a war of the heavens, represented in most convincing manner.

As a contrast, works which positively radiate the sunshine in which they are immersed are the neighbouring "Prudhoe Castle" and "Windsor Castle."

The "Worcester," the "Coventry," and the "Saltash," are among the exquisite things which have become familiar to us through having been rendered in engraving for the series of prints published in "England and Wales." The "Worcester" is perhaps the most enchanting of the trio. Turner makes the most possible of topographical subjects, and, as was permissible alone to such a genius as Turner, he takes ample artistic licence with his subject matter; added to this,



LINCOLN: BY GIRTIN.



FOLKESTONE: BY PROUT.

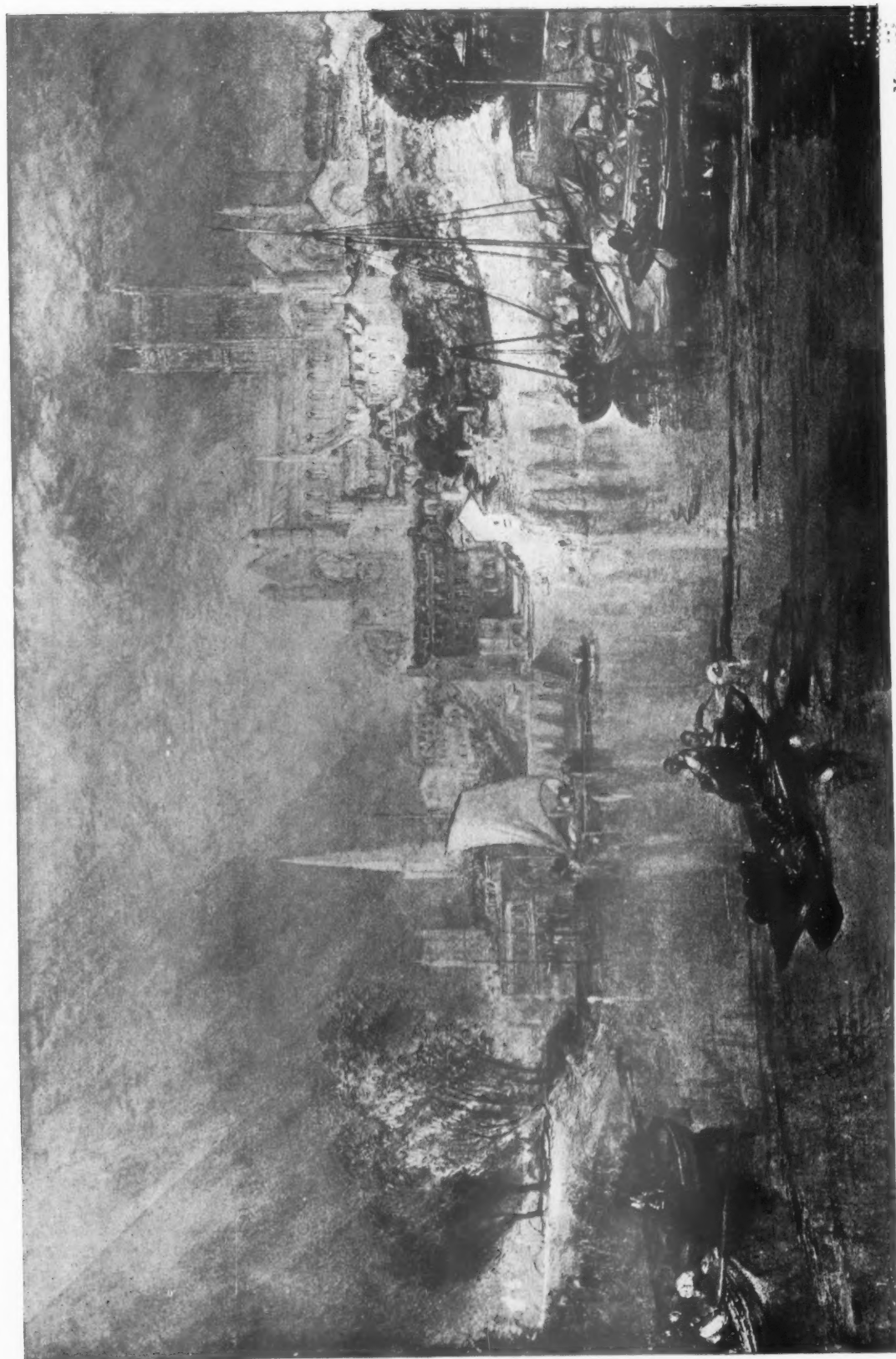
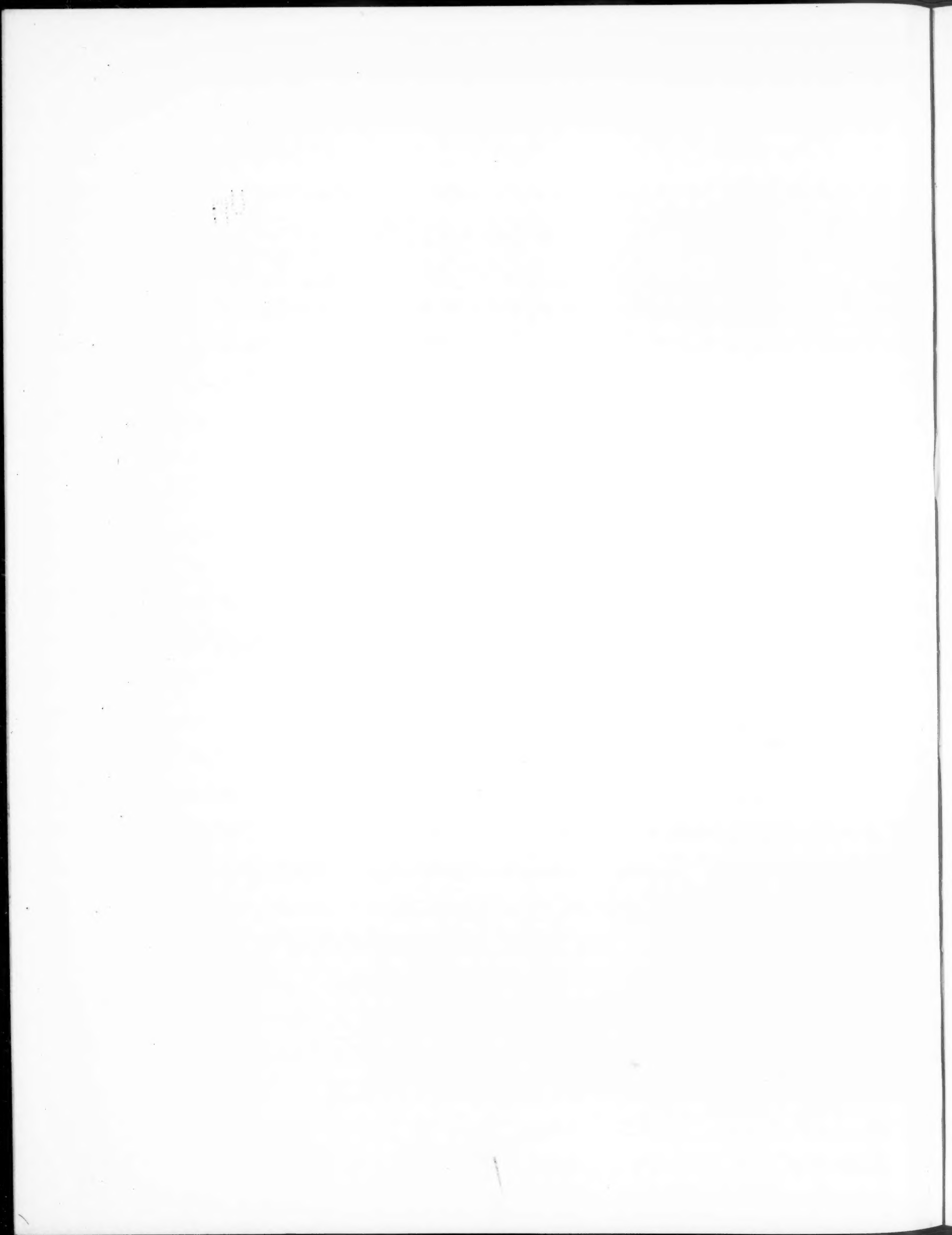


Plate VI.

WORCESTER.
From a Water-colour Drawing by J. M. W. Turner.

May 1913





ROUEN: BY GIRTIN.

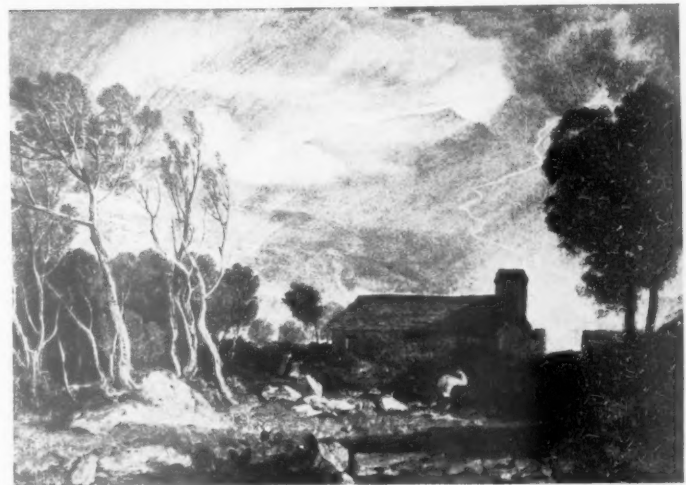
he depicts his towns at such moments as in nature they appeared to be more like delicate or gorgeous dreams than actuality.

But Turner was omniscient as a draughtsman and as a painter. This fact is provable at Agnew's, where one may study his marvellous ability as an architectural draughtsman, as an unerring limner of horses, of dogs, of figures, of shipping, and, of course, of land-, sea-, and skyscape. Thus his "Vale of Pevensey from Rosehill Park" is not one of his exciting-moment pictures, such as the little "Rainbow," but just a beautiful, placid expanse of Sussex landscape. His hunters, huntsmen, and hounds are an eye-opener in his apparently early work, "Cassiobury: the House seen across the Park," and in architectural subjects his studies of "Crosses and Brasses, Whalley Abbey," are infinitely loving and careful, and his "Old Abbey, Evesham," again testifies to his love of purely architectural exercises. It seems surprising that these and the "Valley of the Washburne near Farnley" could have been executed by so untidy and eccentric-looking a person as "J. M. W. Turner, R.A., in the Print Room of the British Museum," where he is represented as having been in the adjacent

sketch by J. R. Smith. It is interesting to note that so original an artist as Turner studied the works of his predecessors (perhaps he is looking up engravings after Claude) at "the British."

There is a group of works by J. R. Cozens, interesting as being by the father of British water-colour painting. They are dignified in composition, but, as are all early examples of the art, are too restricted in range of colour to satisfy contemporary taste.

T. Malton, the architectural draughtsman, is represented by a "West Front, Town Hall, Bath, 1777," which shows his typically solid drawing and well-arranged figures. It is surprising how very similar in treatment are Turner's "Malmesbury Abbey," Girtin's "Fountains Abbey," and E. Dayes's "Priory Church, Tynemouth." The name of H. Edridge is that of a rather forgotten A.R.A., yet his "Prison of the Conciergerie, Paris," is a most dainty and sensitive rendering of the picturesque buildings of his time. A yet less familiar name (that of a co-illustrator of Pugin) is F. Mackenzie. In



PATTERDALE OLD CHURCH: BY TURNER.



THE ABBEY GATEWAY, READING: BY F. MACKENZIE.

his "Abbey Gateway, Reading," extreme dexterity in the painting of the various building materials is apparent. Cotman is well represented in his "Gormere Lake, Yorkshire," seen in threatening weather, when sunshine and shadow are playing a rather truculent game of bo-peep. It does not do to exhibit Clarkson Stanfield alongside Turner, though the gleaming distance in "Seaford from Newhaven Pier" is a brilliant piece of work. Prout had keen eyes for the picturesque, but dealt with architecture with a somewhat heavy hand; he is to be seen at his best in the "Coast Scene," with its admirably drawn vessels, and in the romantic "Folkestone." David Roberts, who in oils may be termed the Velasquez of architectural painting, has a big picture in miniature in the "Durham." This is followed by Varley's forcible "Leyton, Essex." Worthy links between the old and the modern painters are supplied in T. Collier's breezy "Beeston Castle" and the truly exquisite pictures of "Downs" at early morning and with rising mists at "Cissbury." F. L. EMANUEL.

SOME IMPRESSIONS OF TOLEDO.

By BART KENNEDY.

I.

IT is a fine city in which to lose your way. A maze of streets and plazas and alleys running one into the other in all ways and at all angles. A place thrown together anyhow on the top of a rocky and most uneven plateau. In fact, one can only call it a plateau out of politeness. It has the appearance of a mountain that was cut off very short and afterwards devastated by an earthquake. And on the top of this alleged plateau was built this strange old city.

It is the most striking-looking place that one could lay eyes on. You might wander over the whole earth before you came upon anything half so impressive. To the north of it is the great plain of Castile, over which I had the pleasure of tramping when on my way to Saragossa.

In Toledo the roar of the Tajo lives for ever in the air. It is a river of turbulence, and the sound of it gives point to the confused aspect of the city. In the Tajo fish are to be found in plenty. The river, which wears a picturesque though not a useful appearance, practically surrounds the city.

It is hardly a river in which the small boy could learn to swim. In fact it has the look of being a dangerous place even for a strong swimmer. The smooth places that are in it have a look of treachery. Whether or not the inhabitants of Toledo are renowned as swimmers I do not know. But I am inclined

to think that they give the natatory art a wide berth. For the Tajo wears a most angry and impatient air. It is an ideal river, however, for a fortress town. It would be apt to put trouble in the way of an invading army. On its banks are several quaint-looking Moorish water-mills.

Many kinds of people have inhabited Toledo at many different times. And all have left behind them souvenirs of their architectural fancies. As you meander through the city, on your devious way, you are surrounded by more or less ancient dreams and nightmares in stone. The Arabs and the Jews and the Christians and the Romans and the Carpetani have left mementoes of themselves. There are some indeed who believe that Toledo was in existence at the time when Atlantis flourished. And I must confess that I am at one with these speculative people. For Toledo looks old enough for anything.

There are, of course, new buildings in it. The Hotel de Castilla is a beautiful place done in marble. But it looks fearfully out of the picture. It is altogether out of key with the hoariness of its surroundings. The sight of it is apt to make sorry the observer who possesses the sense of appreciating balance in a picture. This hotel was most comfortable. The vino de mesa (wine that you got free and for nothing) was delightful. I stayed in this hostelry when it had but two guests—myself and an odd-tempered artist who is known to fame. It was not the tourist season.



GENERAL VIEW OF TOLEDO

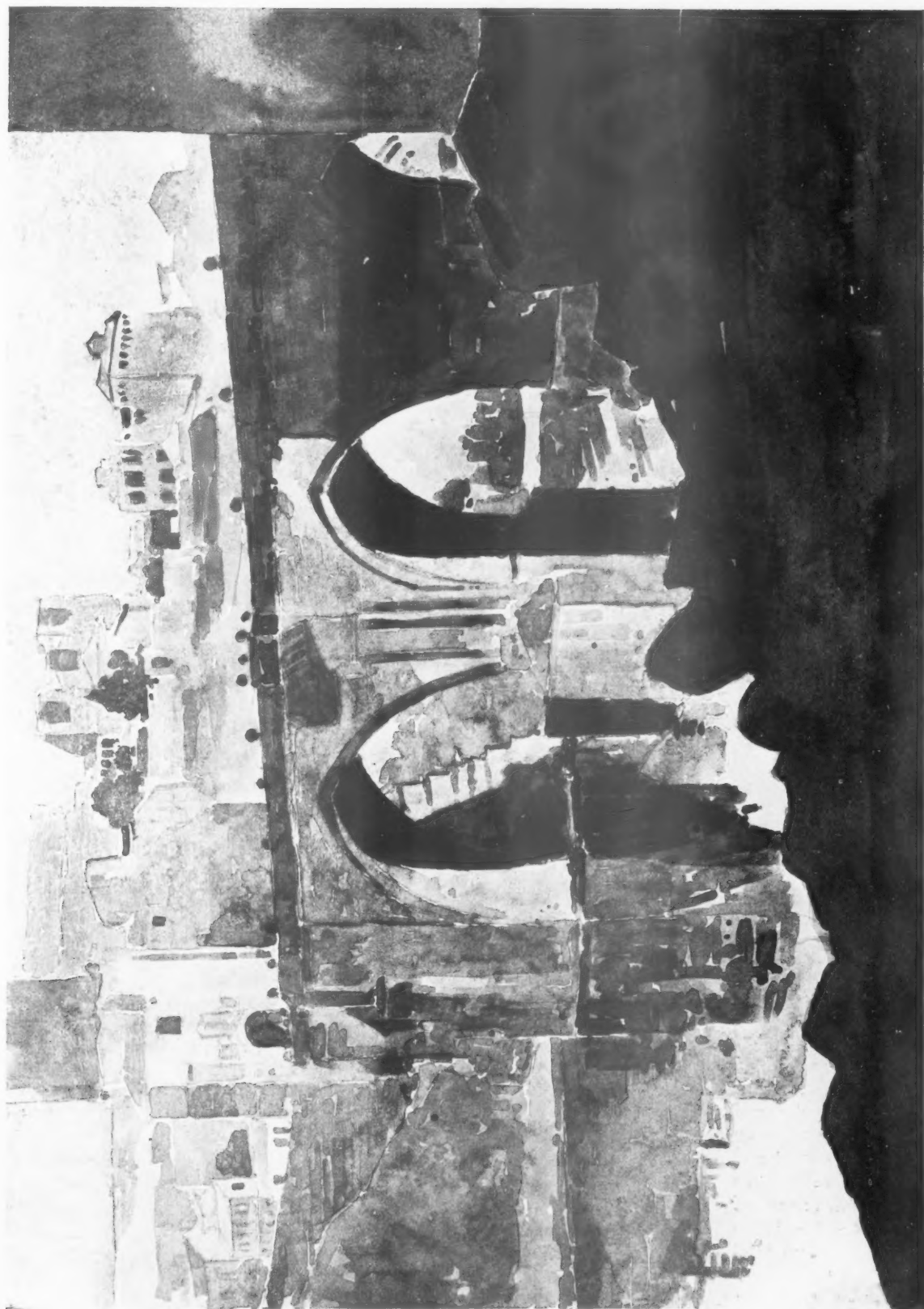


Plate VII, May 1919

THE ALCÁNTARA BRIDGE AND THE TAGUS, TOLEDO.

From a Water-colour Drawing by John Keppie

By kind permission of A. N. Prentice, Esq., F.R.I.B.A.



THE ALCAZAR.

The night-time was a time of much interest in Toledo. Various factors conspired to keep you from entering the land of dreams. There was the roar of the Tajo, and there were varied types of insects that had the assurance to enter even into the marbled hotel sanctuary, and weird sounds that one could not place, and the cry of the sereno (watchman). He walked around at night armed with a lance with which to prod the evil-doing reveller. I can't say that I ever heard cries from a prod-ee. The sereno was doubtless a kind-hearted conservator of law and order. But, his voice! It needed a file. He used to stand just outside the hotel and tell the earth in general—in rasping, guttural Spanish—that all was very well. This he did about every ten minutes. He was a fearful sleep-killer.

I have heard people say that Spanish is a language that has a melodious sound. It has and it hasn't. It depends upon the person who is using or abusing it. I have heard peasants in the north-east of Spain speaking it in a way that was calculated to injure a listener's ear-drums. This sereno of ours needed a course of scale exercises badly. It might possibly have rubbed the injurious edges from off his voice.

Though one might hardly credit it, Toledo was a bustling kind of place. People moved smartly about, and a good deal of conversation filled the air. I used to listen to it with much care. But the thread of it was almost impossible for me to follow. As near as I could get at it, it was mainly concerning bull-fighting. This is the topic of topics in Spain.

The Toledans were not as the people of Granada down in Andalusia. They hadn't the genius for taking life with calmness and ease. They were a different branch altogether of the Iberian family. They did not fascinate me as did the Andalusians. But they interested me. It may have been

that the roar of the Tajo kept them up to the mark as far as activity was concerned.

You entered Toledo from the Alcántara bridge. And what a wonderful view you got of the river-surrounded city. Toledo was up above you—a rugged, formidable place of grandeur. A splendid, sinister place, living in the hard glare of the sun. And you went along a broad road, passing by old walls that the Moors had built—the old Moors who were gone, and who at the same time were not gone. For people of their blood still lived in this strange Toledo.

Here was the Puerta del Sol. A Moorish gate between two towers. A gate nigh on to a thousand years old. And it might well be that there would come to you the reason of man's veneration for the past. For from the past had come the present even as the son had come from the father. And before your very eyes was the expression of a past most splendid. A past gallant and brave and wondrous. The great Toledo that towered above the plain in the hard light of the sun!

You were in it now. You were in the bewildering maze of narrow, winding streets and plazas. You were passing old houses with walls immense and strong. And places that had the look of prisons. Places secret and terrible of air. For in this old, strange city terrible happenings had occurred. The plazas and the narrow winding streets had run with blood. Fierce cries, and cries of anguish, had filled the air. Arabs and Christians and men of other races had fought together. These stones of the strange streets! What tales they could have told!

Somehow Toledo always gave me the feeling that its past was actual and alive—that it was really co-existing with the present. There seemed to be some strange vital quality in it as it expressed itself in the ancient massive buildings and



COURTYARD OF THE ALCAZAR.

walls around. The fret and the change of the centuries had marked heavily the aspect of these places. But they were full of meaning. Indeed, they actually dominated.

II.

Here was the shop in the Plazuela de Cuatro Calles that was kept by one Alvarez. Herein were the famous swords of Toledo. Wonderful death-blades that you could roll up as you would a spring. They were made even now in the Fábrica de Espadas that lay on the Tajo about half a mile to the north-west of the city. Strange blades at once beautiful and threatening. To look upon them fascinated one. They brought to the mind all kinds of images and pictures. Their day of use in war had perhaps gone. They were now but as curious mementoes of the fighting of the past—a fighting that doubtless was wedded to a chivalry.

Guides were many in Toledo. They were of all shapes and sizes and kinds. They were out to improve the shining hour as far as the getting of as big a bit as possible from the innocent and confiding tourist was concerned. As there were practically no tourists round when I was in Toledo, I came in for a good deal of attention from them. I felt the need of several guides in wandering round so mixed-up a city. But my experience in Spain had forced me to the conclusion that guides were quantities fearsome and unknown. Either they did not understand what one wanted to see, or they were possessed too strongly of the ambition to impart inexact information. Besides this, they were an over-voluble class.

I did pick up with a one-eyed guide in the Plaza de Zocodover. He was a garrulous man who had acquired nine or ten words of English. These he mixed well up with words of French and innumerable words of his native Spanish. As a conversationalist he was a freak worth listening to. But he did not distinguish himself as a guide. The complex and involuted structure of Toledo seemed to have reproduced itself in his intelligence. He never seemed to know where he was. And I didn't wonder at it. However, I paid him off in the end and wandered through the city on my own. I never knew where I was. I was lost all the time. But I placed my faith

and trust in that obscure instinct that causes the lost person to wander in a circle. I would start from a place, secure in the knowledge that I would come back to that place if I kept on long enough. My scheme worked as works a charm. Indeed, I felt that I was qualified to act as a guide myself if any innocent tourist were to happen along.

In my humble opinion a guide is mainly of use because he causes money to circulate. Money is round and was made to go round, and it is fulfilling its mission in life when it passes from the tourist's pocket into the guide's eager and capacious palm. Besides, when all is said and done, there must be someone to lead the green and innocent around; and, as remarked, money must circulate.

I may say that I saw a fair amount of the odd-tempered

artist. He knew Spain very well indeed, and he was a connoisseur as regards bull-fighting. But in the fullness of time a slight coolness came up between us. I wanted him to guide me to a certain mosque. He refused. I found it, however, myself by adopting my plan of keeping on after I had lost myself. The last I saw of my artist friend was his back as he was leaving the Plaza de Zocodover. We had had an acrid argument after dining together at the hotel.

The mosque was small and not impressive. I felt that the seeing of it was hardly worth the trouble to which I had gone to find it. It was about a thousand years old. There was a legend concerning it to the effect that the horse of the Cid had once knelt before it, the reason being that there was a crucifix hidden behind one of its walls.

The Moors had neither the power nor the imagination of the Christians in their architecture. This struck me very much in my wanderings through Spain. And if architecture is in any way a reflection of national or racial character, one can understand why the Spaniards put the Moors out of Spain. They were obviously a stronger and far more imaginative people. The monuments that the Moors left behind them showed hardly anything more than fancy and a sense of elaboration of design. There was in them no suggestion of power and grandeur.

This may have been due to their conception of religion.

(To be concluded.)



THE CATHEDRAL.

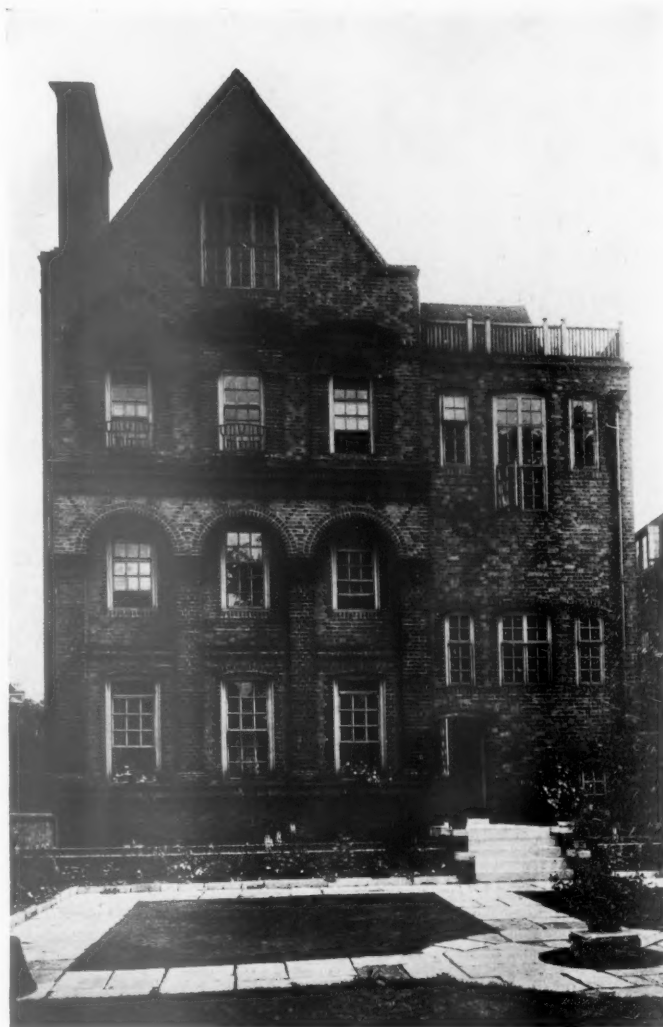
AN ARTIST'S HOUSE IN CHELSEA.

To design a house for an artist in the select locality of Chelsea is a fascinating task for an architect. It places upon him a double responsibility; for the house, besides reflecting the taste and personality of the artist, must be in spiritual accord with the traditions and associations of the neighbourhood—architectural, literary, and artistic. Such a house as this Mr. Halsey Ricardo has raised in Chelsea for Mr. C. Maresco Pearce, the artist.

Though the site is of quite an ordinary width, Mr. Ricardo has invested his principal elevation with an unusual amount of interest. Actually it consists of two distinct compositions—one related to the principal rooms, the other masking the staircase. The effect secured is thus due mainly to an unconventional form of composition, though the front owes something of its distinction to the dexterous use of variegated brickwork and diaper work.

The height of the principal portion of the elevation is divided into two roughly equal parts, the pilasters which separate the ground- and first-floor stories running through the height of both floors and carrying an arcaded treatment with cornice. Immediately above rise the second-floor windows, which have somewhat heavy surrounds with pediments. To some critics these may appear rather superfluous, though it would be difficult to dispense with them, as they certainly serve a purpose in carrying on the lines of the arcaded treatment below. The gable contains the painting-room, which explains the large size of the topmost window, and could be held to excuse the dimensions, if any excuse were needed; but the effect is good, and the feature may serve as an instance of a happily solved problem.

The contract for the building of the house was undertaken by Messrs. Trollope and Sons and Colls and Sons in May 1914, and the work was finished in the early part of the following year. A special feature of the interior is the use of wide boards of Oregon pine for the floors and staircase. It is but due to the memory of the foreman of the works (Mr. Green, killed in the War) to record the skill with which he superintended the erection and completion of the house.



Principal Elevation.



Painting Room.



No. 117 CHURCH STREET, CHELSEA.

Halsey Ricardo, F.R.I.B.A., Architect.

THE MYSTERY OF THE GREAT PYRAMID.

SOME years ago Prof. C. Piazzi Smyth wrote a book under the title "Our Inheritance in the Great Pyramid," and a chapter on the same subject was written by Pastor Russell in his volume "Thy Kingdom Come" of the "Studies of the Scriptures" series. The subject has been under consideration during the last fifty or sixty years, the first investigation by John Taylor (an Englishman) having been begun in 1859, and continued later by a Scotsman, Robert Menzies. Some measurements were also taken by Prof. Flinders Petrie, whilst an excellent treatise was written by Dr. Joseph Seiss, entitled "A Miracle in Stone."

All these are, however, somewhat hard reading, and it may be that a concise summation of some of the principal points enumerated would not prove uninteresting to readers of this REVIEW.

It is said that many important and basal astronomical, chronological, and geometrical truths have been observed in the dimensions of the Great Pyramid: the number of years in the precessional cycle, the mean distance from the earth to the sun, the number of days in the true year, and correct standards of weights and measures based upon the size and weight of the earth; but it is chiefly the religious aspect of the question that most people who have written about it have found so interesting.

A section of the pyramid with its passages and chambers is given on the opposite page. Whether the pyramid was really constructed or designed by supernatural means as a prophecy of now past, present, and future world events, or whether the whole matter is a question of fortuitous circumstances, or only of pure chance, it is not within the province of the present writer to inquire, and he accordingly offers no opinion.

The Great Pyramid was one of the "seven wonders of the world," and is situated on an elevated rocky plain known as the Gizeh cliff, overlooking the River Nile not far from Cairo. It is the largest building in the world, and some of its stones are said to weigh as much as three or four of the largest obelisks put together in one block. It is said that one at least of the stones weighs as much as 880 tons. Some of the stones are 30 ft. in length, and many of the joints between the stones are so fine that the blade of a penknife cannot be inserted, although no mortar was used. It would be a very difficult undertaking even in this twentieth century to make two such surfaces to meet so closely, if indeed it could be done at all.

With the exception of the floor and ceilings of the "King's Chamber" and the "ante-chamber," the passage between them, and the "plug" at the bottom end of the "first ascending passage," the whole structure of the pyramid is of limestone, the exceptions referred to being of granite.

The Great Pyramid is 764 ft. long at the base, is 486 ft. in height, and the area covered by it is about thirteen acres. The estimated weight of material used is six million tons, and it would require 60,000 engines and trains, each with a capacity of 100 tons, to remove it.

It has never been thought that any of the other pyramids possess symbolic features. These, more or less, are merely copies of the Great Pyramid, all of them being inferior in

size, and all, probably, having been intended as monumental sepulchres for the Egyptian kings.

The verses Isaiah xix. 19-20 speak of a "sign" and a "witness" in the land of Egypt, and Jeremiah xxxii. 20 also refers to "signs and wonders in the land of Egypt," and our authorities mentioned above claim that the Great Pyramid is here referred to, and that in itself and by its measurements it represents the earth and the plan of the Almighty with reference to the people of the earth.

It is said that the fact that there was an "entrance passage" was well known to ancient historians, but the exact locality of it was not found out until an Arabian caliph, by name Al Mamoun, forced an entrance into the north side, A.D. 825, and found by accident the "entrance passage" itself. It appears that the treasures this caliph expected to find were not discovered, although the Arabs must have given themselves a great deal of trouble in the search. The Arabs under this caliph found the "ascending passage" from the fact that the stone or granite block, evidently placed to conceal it, was jarred out of its position during their exploration; and as they were quite unable to remove the "plug" so placed, they excavated around it by cutting through the softer limestone, and so gained the first ascending passage they were perhaps looking for.

Prof. Smyth conjectures that the pyramid was built 2170 B.C., by Melchizedek, one of the Hyksos or Shepherd kings, and that at this date the entrance passage would point directly to α Draconis at midnight on the autumnal equinox. The date was obtained also by certain measurements given by the pyramid itself, to be referred to later.

Lower Egypt has a fan-like shape, and the coast forms almost a true arc of a circle, being in fact a quadrant, with the Great Pyramid in the exact centre, from which the circular arc might have been drawn. Another remarkable fact is that the pyramid is situated in the exact centre of the land surface of the Earth, including both North and South Americas, which were, of course, unknown for many centuries after the pyramid was built.

The "entrance passage" formed in the northern face of the pyramid, which pointed at the date named to and from the Pleiades—in which constellation, by the way, is found the central point around which even our Sun is said to move as a centre—is low and slanting, and leads down by a regular descent to a little room known as the "subterranean chamber," cut in the rock itself, and not within the pyramid raised above it. The ceiling of this chamber is well finished; the walls are less completely worked up; whilst the floor, remarkably enough, is absolutely unformed and rough, and this has been suggested as a symbol of the "bottomless pit" of the Scriptures.

The "entrance passage" being inclined downwards to it, is said to symbolize the downward course of mankind towards disaster, oblivion, and extinction.

The "first ascending passage" leading off from the "entrance passage" is small, low, and difficult of ascent, but opens at its upper end into a much higher passage called the "grand gallery." This gallery is no less than seven times the height of the first ascending passage, this height being formed by corbelling out the masonry in seven "set-offs," or projections, on both sides and both ends, each projection being about 3 in., and all of cream-coloured, highly polished limestone.

The descending passage from the entrance on the pyramid face leading down to the subterranean chamber or pit is said to represent the general course of the world into the great time of trouble in which evil shall be brought to an end. Starting from the date mark previously mentioned at the junction of the "first ascending passage" with the "grand gallery," this date being that of the commencement of the Christian era, the measurement downwards to the junction of the "first ascending passage" with the "entrance passage" was found to be 1542 inches, thus indicating the year B.C. 1542 as the date at that point. The date of the Exodus, by the way, is generally taken as 1491 B.C., but there may be some adjustment in the length of the "plug."

Measuring down the "entrance passage" from this point the distance to the entrance to the "pit" representing the "great trouble and destruction" is found to be 3457 inches, symbolizing 3457 years, and subtracting 1542 from 3457 we find the end of 1914 or beginning of 1915 as the date of the commencement of the great time of trouble, "such as the world has never yet seen and never will see again."

We understand this reasoning was fixed upon by our authorities before the late European War between the uttermost forces of autocracy and democracy began; and if so, it was a remarkable date to have been so pre-determined.

Another item concerning the measurements has been pointed out: the downward slope of the "entrance passage" ends with a level portion before the actual entrance to the "pit" is reached. The measurement of this level portion was 324 inches; and, again applying the inch-year theory, the time from 1914 backwards, 324 years, brings us to A.D. 1590, approximately the time of Shakespeare, the Protestant reformation, the Renaissance, the revival of learning, the new era of universal advancement, the end of the Dark Ages—a significant advance from the ignorant superstitions of the past.

The "Queen's Chamber" is provided also with air passages leading to the outside of the pyramid, as in the case of the "King's Chamber"; but for this room, remarkably enough, the air passages did not come down right into the room, but were stopped and chiselled out of the stone, leaving only a half-inch of stone closing up the passage. This was found out by Mr. Waynman Dixon, who when examining the "Queen's Chamber" noticed that the walls at a certain place sounded hollow, and breaking through the surface he found one ventilating tube; and then by the same process of sounding he found the corresponding tube on the other side of the apartment. Why had these thin partitions been left in this manner after making the air passages right through the body of the pyramid?

The length of the floor line of the "grand gallery" from the commencement at the end of the "first ascending passage" should be an interesting dimension as marking the length of the Christian age, and this was measured as 1882 inches. Adopting the inch-year theory some great event should have occurred in the year A.D. 1882; but it is difficult to find a satisfactory happening at that date, other than the Egyptian imbroglio, to correspond with the theory. Our authorities do indeed claim that this dimension refers to some spiritual phenomenon which is said to have occurred, but the reasoning is so involved that we cannot deal with it.

Many other measurements and corresponding dates have been fixed by our authorities, but as they mainly refer to spiritual and transcendental matters they cannot be mentioned here.

Although, of course, one would hesitate before giving a

religious and symbolical meaning to the many curious details in this vast structure, yet the meaning of many points remains very mysterious.

If the pyramid was intended to be the burial place of the dead king and queen, why is there no evidence of the finding of their mummified bodies?

Why the varying sizes of the ascending and descending passages? Why does the ascending passage suddenly enlarge out to seven times its height elsewhere, and what is the reason for the seven corbelled-out courses in the enlarged gallery? Why is the horizontal passage to the "Queen's Chamber" enlarged for one seventh of its length before reaching the chamber?

Why were the floors of some of the chambers left absolutely unformed and unfinished, and the ceilings polished smooth? What is the meaning of the five spaces formed over the "King's Chamber" under the two sloping stones? They are not required for constructional reasons.

It appears inexplicable why the underside of the stones forming these five chambers should be so carefully polished, whilst the upper surfaces of the stones should be as carefully left rough and unfinished.

And what is the purpose of the rough-hewn but practically vertical "well"?

But all these mystifications, though fascinating, are a little futile.

R. S. S.

BOULEVARD AND EMBANKMENT CAFÉS FOR LONDON.

SOME thirty years ago, fresh from a prolonged stay in Paris, the writer first advocated boulevard cafés for London. Nothing that has occurred since has caused him to revise his opinion on the matter. On the contrary, English people travel more and more, and become broader and less conservative or insular in their views as time goes on. The War, moreover, has caused immense numbers of Englishmen to visit the Continent and to taste of its discomforts and pleasures—men who, under ordinary circumstances, would not have visited "furrin parts."

That certain features of the Continental café, such as chairs and tables on the footway, would be impossible or inadvisable in London, is evident. But its main features, I am certain, would be hailed with delight, not only by our visitors from abroad, who sadly miss such rest and refreshment rendezvous, but by our own people.

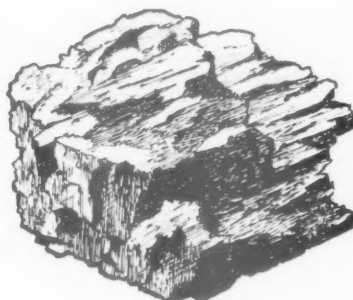
All that is required is that the café shop-front should be provided with a large glass window reaching to the ground which could be opened upwards at will in summer time or whenever fine weather prevails. The tables and chairs would be inside the shop, but arranged so as to give a full view of the marvellous life and go in our streets. Havens of rest would they be, whence at one's ease one could study the ceaseless passing show of the capital of the world.

Any amount of mischief is brewed by evildoers behind the closed doors of public-houses; let in the daylight, and good will be achieved in that direction alone. Yet one is told, as usual, that there is some antique regulation or by-law prohibiting open cafés. We are far too prone to regard the mere existence of antiquated restrictions as an insuperable difficulty, instead of insisting that whenever an improvement is retarded by legislation it is the legislation that must be altered instead of the improvement being dropped.

Present Fuel Rations Ample.

For Heating, Hot Water Supply and Cooking requirements in the dwellings to be erected under the Reconstruction schemes, the fuel allowed by the existing Rationing Order will be ample if consumed to the best advantage in the latest types of Ideal Boilers.

IDEAL & IDEAL
RADIATORS BOILERS



With
Open Fires.



With
Ideal Warming System.

Relative Fuel Consumption.

The Workers demand better homes with the maximum of healthfulness, cleanliness, convenience, and comfort, which are distinguishing characteristics of Central Hot Water Warming and Independent Hot Water Supply apparatus, thus affording Architects, Builders and Heating Engineers an opportunity of securing the installation of these modern appliances on an unprecedented scale at little or no additional cost but with very great advantage to the future tenants.

NATIONAL RADIATOR COMPANY
LIMITED.

Offices, Showrooms & Works: HULL, Yorks.
Telephone No.: CENTRAL 4220. Telegrams: "RADIATORS HULL"

London Showrooms: 439 & 441 OXFORD STREET, W. 1.
Telephone No.: MAYFAIR 2153. Telegrams: "LIABLENESS LONDON."

THE Perfect System of Heating

Specially suited for:

PRIVATE HOUSES.
OFFICES,
SCHOOLS,
CHURCHES,
HOSPITALS,
HOTELS,
WORKSHOPS,
&c., &c.

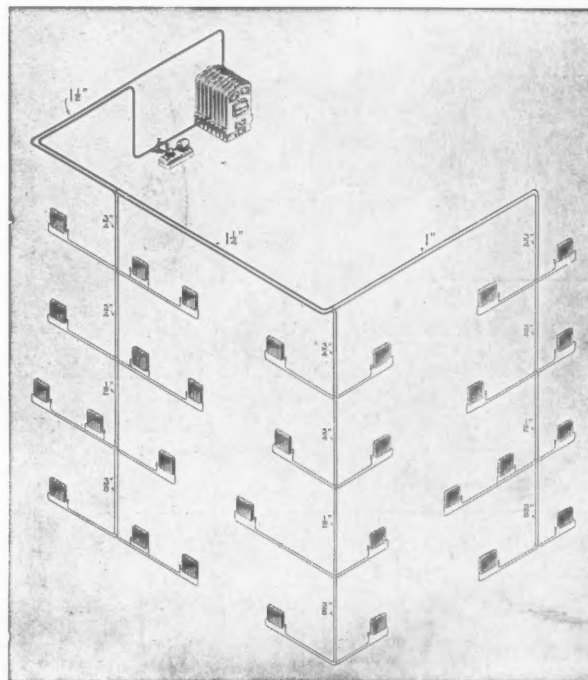
ECONOMY.
SIMPLICITY.
LOW COST.
PERFECT ACTION.
NO PIPE TRENCHES.
BOILER FIXED ON
ANY FLOOR.
SMALL PIPES.
PIPES RUN
IRRESPECTIVE
OF LEVELS.

Telephone:
Mayfair 0481 (2 lines).

Telegraphic Address:
"BENHAM, WESDO, LONDON."

Apply—

BENHAM & SONS, Ltd., 66, WIGMORE STREET,
LONDON, W.



RECENT INSTALLATIONS

of the "Perfect" System
include:—

Church Missionary Society,
Salisbury Square, E.C.
Messrs. Seth Smith & Monro,
Architects.

School of Tropical Medicine
and Seamen's Hospital,
Albert Docks, E.
Messrs. A. Marshall Mackenzie &
Son, Architects.

Showrooms and Offices of
Messrs. Studebaker, Ltd.,
Gt. Portland Street, W.
H. O. Cresswell, Esq., Architect.

All Saints' Church, Goodmayes.
P. K. Allen, Esq., Architect.

New House, Lympne, for Sir
Philip Sassoon, Bart.
Messrs. Herbert Baker and Ernest
Willmott, Architects.

Gateburton Hall, Lincs., for
J. D. Sanders, Esq.
Messrs. Scorer & Gamble,
Architects.

Offices of Union Insurance
Society of Canton, Ltd.,
Shanghai.
Messrs. Palmer & Turner,
Architects.

Archibald D. Dawnay & Sons, Ltd.

Engineers and Contractors for all Classes of
CONSTRUCTIONAL STEELWORK.



FACTORY BUILDING & RECONSTRUCTION WORK *FROM STOCK MATERIALS.*

Up-to-date Designs prepared and submitted Free of Charge.

Stocks of all British Standard Sections in JOISTS, CHANNELS, ANGLES,
TEES, FLATS, Etc.

London :
STEELWORKS ROAD,
BATTERSEA, S.W.

Telephone : BATTERSEA 1094-5-6.
Telegrams : DAWNAY, BATT SQUARE, LONDON.

Cardiff :
EAST MOORS.

Telephone : CARDIFF 2567.
Telegrams : DAWNAY, CARDIFF.

By the way, there already exists a public-house opposite the Kensington Gardens which in actual practice proves the feasibility of such a scheme as I propose.

Mrs. Hylton Dale at the outbreak of war was conducting a vigorous press campaign in favour of boulevard cafés, which bade fair to succeed. Now that the War is over the thread should be taken up again with increased chance of success. A start might be made by converting the fronts of one or two cafés opposite the stations at which visitors from the Continent arrive here.

Luckily it is rarely that Londoners suffer from the intense heat with which New Yorkers are periodically afflicted. The roofed recreation piers built out into the tidal waters of the harbour have proved an inestimable boon to numbers of persons who would run the risk of expiring from heat and exhaustion. For all that, we have a noble and interesting river running through the heart of our city, we have long spells of warm if not of actually hot or oppressive weather, yet along the whole length of the Embankments there is no restaurant, no café, whence one can enjoy the view in comfort, fanned by the river's cooling breezes.

Here and there, say outside the Tate Gallery, at Westminster, at Charing Cross, outside Somerset House, and at Blackfriars, semicircular bays or ramparts should be built from the Embankment out into the river, and on them should be erected comfortable many-windowed cafés, with an open-air exterior deck provided with seats. Stages for the steamers (or rather motor-craft) that we must have again could also form part of the scheme. Music of a high order should play at stated times, and at last we might get our Embankments properly appreciated.

F. L. E.

PAGEANTRY AND STREET DECORATION.

JUDGING by results, the art of temporary street decoration in England is not much understood by the people. This is largely due to the lack of a good lead by those whose training

should enable them to give it. It was therefore with pleasure that on the occasion of the recent triumphal march of the Guards one noticed that the Mall was most effectively decorated with handsome pylons tastefully embellished with flags. Yet, this successful effort was allowed to pass almost unrecorded. The National Gallery has also on several recent occasions been decorated with flags in an artistic manner: not, as usual, by a squandering of thousands of mean ineffective little bits of colour, but by flags tastefully placed and of a size commensurate with the surface to be adorned. There is, I believe, at least one society recently formed to deal with the artistic side of pageantry and street decoration.

By the way, what a pity, when the processional way (the Mall) was being rearranged, the footpaths were not given sufficient gradient to allow of serried ranks of sightseers to see over one another's heads with ease and so avoid the usual crushing! Let this stand as a "tip" for the future.

F. L. E.

AN EXHIBITION OF FURNITURE.

AT Crown Works, Lambeth, Messrs. Higgs and Hill, Limited, are holding a very interesting exhibition of furniture, all the pieces on view having been made by their own craftsmen from the designs of three well-known architects—Mr. Charles Spooner and Messrs. Williams and Cox. The exhibits include bedroom and dining-room suites and separate pieces, all in oak, fumed or wax-finished. The designs are all essentially modern in style, and owe little of their excellence to historical models. The designers are to be congratulated on having produced what is really wanted in these severely practical days of reconstruction—sound, sensible, yet beautiful furniture to sell at prices that, taking all things into consideration, are by no means high. Several of the pieces may be specially mentioned. First there is a delightful secretaire designed by Mr. Charles Spooner; one has but to see it to covet it. Then, by the same designer, there is a magnificent "shovel-board" table, the size of which may be varied at will, leaves at either end sliding conveniently beneath

the middle section. Also by Mr. Spooner there is a handsome sideboard, a feature of which is a removable shelf in the central (or cupboard) compartment. The bedroom suites on view (designed by Messrs. Williams and Cox) include a capacious wardrobe, dressing-table and mirror, washing-stand, and two rush-bottomed chairs—the whole forming a neat and serviceable outfit. The washing-stand has a tiled top and back, the tiles being laid with a fairly wide cement joint, which imparts quite a distinctive note to the piece. Other interesting pieces include light tables and corner cupboards. Architects and all others who are interested in furniture design or house furnishing should not fail to visit the exhibition, which is open between the hours of 2 and 6 p.m. Besides Messrs. Spooner, Williams, and Cox other prominent architects have designed furniture for Messrs. Higgs and Hill, and we understand that examples of their work will be exhibited later on.



WAINSCOT OAK SIDEBOARD.
Designed by Charles Spooner, F.R.I.B.A.

CORRESPONDENCE.

MODERN ARCHITECTURE IN THE ORIENT.

To the Editor of THE ARCHITECTURAL REVIEW.

SIR,

In your review of Captain Briggs's book "Through Egypt in War Time" you disagree with the author for giving so small a photograph of a street in Heliopolis. He calls this place "The White City, transplanted." Your critic finds the place perfectly in keeping with the Orient.

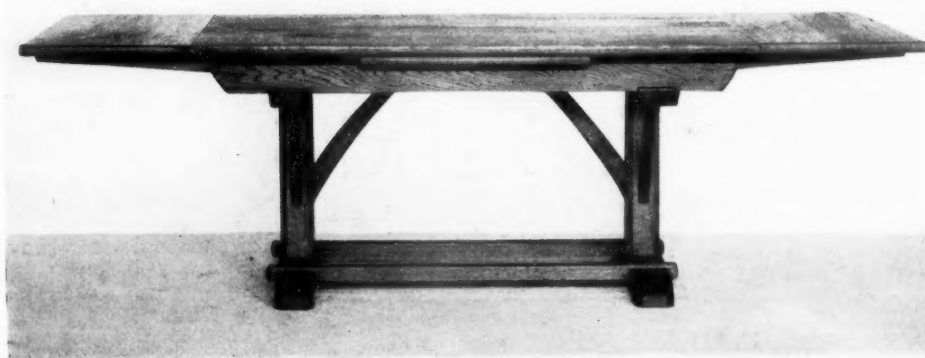
May I relate a little tale which, being on architecture, is quite suitable to this occasion? There was a gentleman from the States who was for ever exhibiting the Stars and Stripes both in and out of season. We were in Egypt at the same time. His dahabeah was anchored close to mine. One afternoon, stepping out on to the Nile bank, I found my American neighbour about to start for a ride, and he suggested I should go with him to tea at a certain house, to which I was pleased to agree. With these very demonstrative types, such as he was, I have found that, quite unwarily, you may fall quick into the ditch. I selected for my subject of conversation the Chicago Exhibition, which had but recently closed, and lamented that amongst a people so inventive as were his countrymen the vast group of exhibition buildings had about them nothing but the very picturesquely combined commonplace. Nothing that indicated that they were temporary and yet sufficiently monumental, such as the French had accomplished at Paris not long before. Alas! I had dropped a match in a magazine of explosives. My American friend begged leave to observe that the architects in his country were capable of anything. He finally crushed me with an account of the house of Mr. Van der Dollars, who had built a residence at Long Island, *pure* Greek in style, which cost (an important thing to bear in mind) 700,000 dollars. This he repeated several times. I looked very humble and asked if it had any windows. "Of course it had. What do you mean by asking such a question?"!!! I looked still more humble, and answered: "The Greek house had not any windows; it was lighted from courts within." Now, the same remark I offer once more, in all humility. The Eastern house is very sparing in its external windows—its rooms are lighted from the courts within. The "authentic character" of the East is conspicuously absent from Heliopolis. A European house (and such there are) bedizened with a minaret and arcading has nothing authentic about it, and in the case of Heliopolis, where in sundry instances the houses are actually reproductions of some at Blankenburg, but with very thin concrete walls, every possible requirement we need in the East is wanting.

I am, Sir,

Yours faithfully,

A. B. C.

In answer to the above letter the reviewer of the book in question writes: "I agree with 'A. B. C.' that the amount of window space in the buildings of Heliopolis is more than adequate; but large windows are a defect (if so it must be called) of nearly all modern buildings in Egypt, even those of purely native origin. The modern Egyptian, influenced no doubt by European fashion, seems to prefer large windows, fitted with shutters or shaded by sun blinds. These adjuncts are, if I remember rightly, much in evidence in Heliopolis; and to me the houses did not appear at all uncomfortable to live in, though on this point I am quite willing to accept the assurance of 'A. B. C.,' whose experience is much more intimate than my own. With all deference to 'A. B. C.,' I still think I am justified in saying that this kind of architecture is perfectly in keeping with the Orient—in its outward forms and characteristics, at any rate. 'A. B. C.,' however, deprives me of my principal point by taking a few words from their context, which reads: 'Certainly it (Heliopolis) has more of the authentic character of the East than the hideous *art-nouveau* monstrosities in Cairo itself—than the aggressively European exteriors of Shepherd's or the Continental.'"



Extended.



Closed.

WAINSCOT OAK SHOVEL-BOARD DINING TABLE.

Designed by Charles Spooner, F.R.I.B.A. (See preceding page.)